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Berger's Arsenate of Lead (Paste or Powder.)

Genuine Black Leaf 40.

Sicilian Sublimed Sulphur.

Australian Powdered Sulphur.

Write for our free booklet for full details of above sprays.

Clean fruit Assured—

when Neptune Sprays are used

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SPRAYING MATERIALS

NEPTUNE OIL COMPANY LIMITED

Melbourne Sydney Brisbane Adelaide Perth Hobart Launceston

ELEPHANT BRAND SPRAY

Insist Upon It!

FRUIT GROWERS generally have come to depend on "Elephant" Brand Sprays. They find them absolutely reliable, efficient and of guaranteed quality.

For this Season Use Only
"ELEPHANT" Brand

Apples and Pears will be Scarce

Owing to the ravages of thrip, there will be a short crop of Apples and Pears this season. Every precaution should be taken to guard your crop from CODLIN MOTH by spraying with

"Elephant" Brand
Arsenate of Lead - White Oil

PRICE IS COMPETITIVE — QUALITY STANDS ALONE

ONCE USED, ALWAYS USED

Remember :—"ELEPHANT" BRAND Stands for Quality

SUPPORT LOCAL MANUFACTURE

WRITE FOR PRICES AND PAMPHLET

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are the Actual Manufacturers and Distributors of **"Elephant" Brand Sprays**

Manufacturing Chemists, MADDEN GROVE, BURNLEY, E.1., MELB., Vic.

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A CANNY SCOT.

The Scot was visiting the chemist's. "Hoo much for the bottle?" "Threepence empty, but nothing if there's something in it," said the chemist. "Och aye, put a cork in it," said Sandy, after a moment's thought.

As a Thanksgiving For Your Sight!

Always ask your Storekeepers for "BLIND INSTITUTE" COIR MATS AND MATTING, BASKETWARE AND BRUSHWARE, or write direct to the Institute if they do not stock same. Employment is vitally necessary to blind people. As they cannot earn a living wage owing to their great handicap, the Institute, with your assistance, distributes thousands of pounds annually to enable them to provide for themselves and their wives and families.

Orders for piano tunings, donations in money or kind, will be gratefully acknowledged by

THE SECRETARY,

Royal Victorian Institute for the Blind,

St. Kilda Road, Melbourne.

AUSTRALIAN APPLE AND PEAR EXPORT COUNCIL.

A special meeting of the Executive of the Australian Apple and Pear Export Council was held at Melbourne on May 25. There were present:—Messrs. J. B. Mills (Chairman), B. J. Pearsall (Tas. State Fruit Advisory Board), F. Peacock (Tas. Fruit Shippers), H. G. Colombie (representing South Australian shippers), J. W. Bailey (representing South Australian growers), J. Barker (representing W.A. Fruit shippers), E. Johns (N.S.W. fruit shippers), G. Brown (Vic. Fruit Marketing Association, and representing the growers of W.A. and N.S.W.), J. M. Ward (Superintendent of Horticulture), and R. E. Boardman (Secretary). An apology was received from Mr. C. G. Parnell (Queensland).

After deciding in favor of sending a delegate to the Ottawa Conference, the meeting considered the nominations of Messrs. Neil Campbell (Tasmania), McGibbons (South Australia), and J. B. Mills (Victoria). Mr. Mills was elected as the representative.

After full discussion, it was decided to allocate the expenses of the delegate from the funds collected by means of inspection levy, in accordance with the resolution previously adopted at the January Executive meeting—provided that a statement be obtained from the Department of Commerce to the effect that it was the usual practice for the inspection levy to be used for special purposes.

It was further decided that the existing committee consisting of Messrs. Mills, Colombie and Brown remain in existence, to go into any further necessary details in connection with the case for the Ottawa Conference.

PRICE OF SUGAR.

Striking Contrast in Prices.

To the Editor, "Fruit World."

Sir,—Here are some figures that have not been juggled:—Cane sugar is quoted at 4/2½ per cwt. at London, with port costs, insurance and freight paid for May delivery. This sugar is mill yellow, full strength, and is the same as is now being shipped from Cairns, Queensland, and which is being sold in Adelaide at 4/3 for 12 pounds, not 4/3 per cwt.! This sugar, after paying duty, is being refined in London and retailed by the grocers in Liverpool at 2d. per lb., against our price in Adelaide of 4½d. per lb., with no duty. There have been three reductions in price since March 1. These particulars reached me dated London, April 9, and I have ample proof to assert that these statements are true.

It is quite impossible to reconcile the statements and figures that have been published by the sugar interests with the facts here presented. They clearly reveal the heavy burden and yoke that we are carrying, that has been imposed on us by Queensland without any regard to our almost-empty purses, and the fact that thousands of householders in South Australia have no money at all to purchase sugar, but have to get limited supplies from the Government.

No words can adequately express our protest against the agreement that enables them to impose this yoke, and flog us to pay tribute to their already overflowing coffers for the use of a necessary article of diet. There is no excuse for their want of common consideration for us as consumers, and they know that the reduction in price is long overdue, and they also know that, with such reduction, twenty-odd items of everyday use would drop in price.—I am, Sir, etc.,

FRED CHARLICK.

Adelaide, 20/5/32.

MARKETING CITRUS FRUITS.

The Editor, "Fruit World."

Sir,—Mr. H. Bell, in his letter to the "Fruit World" on May 1, dealing with marketing citrus in Melbourne, tries to explain a non-Association's low prices of 5/- to 7/-, as quoted by Mr. Underwood in the April 1 issue of "The Citrus News," by saying that my market report for those dates was "specials," 6/- to 9/-. I do not quote "special" Navels, and those interested know that the "selected" quotation corresponds to average standard South Australian fruit. There are no grounds for the suggestion that the Association agent did not return the same prices as those quoted for his other consignments on the days in question, and, therefore, Mr. Bell's suggestion that account sales were "built up" is false.

Mr. Bell is also wrong in saying that many firms purchase cheaply from loaded citrus agents and sell at a handsome profit, if his reference is to Association agents. He can, of course, speak with authority on sales of non-Association fruit to other agents, and particularly those made by his own firm. Buying by smaller firms and dealers from agents and merchants has nothing to do with the Association agents being overloaded, and so far as the Association fruit is concerned the prices charged them are in accordance with the minimum prices as fixed by us. These dealers and smaller merchants buy as much from non-Association agents as from the Association, and this was particularly the case early last season in connection with certain lines of South Australian fruit.

Yours faithfully,

G. E. K. KERR,

Market Manager, Federal Citrus Council of Australia.

Lemon Tree—Shedding Fruits.—"H.D.S.", Bowhill, writes:—Will the Department explain the cause of and suggest treatment for a Lemon tree, the fruit of which, after it reaches fair size, drops off?

Answer (by Geo. Quinn, Chief Horticultural Instructor).—The dropping of the young Lemon fruits is probably due to an irregular supply of moisture about the roots of the tree, Lack of nutrition is also a possible cause, and exposure to cold winds also may contribute. I suggest watering the tree systematically, and give an occasional dressing of sulphate of ammonia, dissolve in with the irrigation—using not more than 1 lb. per annum for each year of age of the tree, assuming it has grown well.—("S.A. Journal of Agriculture.")

Avoid the law by acting in a way that it will avoid you.

* * * * *

Economy is the easy chair of old age.

* * * * *

A bore makes a big hole in a man's busy day.

* * * * *

When a fireman works the hose it is only in play.

* * * * *

If a man takes offence he always makes a poor selection.

* * * * *

Keep your face always towards the sunshine, and the shadows will fall behind you.

Batlow, N.S.W.—A Progressive Fruit District

Home of the Granny Smith Apple.

BATLOW is on the map. It took a bit of finding at first, when Victorian delegates to the Cool Stores' Conference looked up the road guide, wondering whether they should go via Tumberumba or Adelong. Some wished they could go by air.

But Batlow is on the map in another sense now. It is certainly on the fruitgrowing map of the Commonwealth, and in the second place it has won a place in the affections of all who were privileged to visit there, attending the recent Fruit Cool Stores Conference.

Those who commenced fruitgrowing at Batlow had stout hearts: they were pioneers worthy of the best traditions of the race. Long before there was a railway line in the district the pioneers grew their fruit and carted it over many miles of rough roads before it could be railed to market.

To look at the magnificent forests of tall stout gum trees in this charming locality, one is brought to realise the immensity of the labor in clearing the timber before the present area of about 2,000 acres under fruit, could be planted.

Batlow now produces normally about 150,000 bushels of fruit. The settlement is a thriving one. The soil and climate are admirably adapted for the production of high quality fruit—particularly the popular Granny Smith Apple. The district has its own cool store and co-operative packing house—the latter aptly described as the most up-to-date in Australia. There is a railway siding right into the cool store and packing house: fruit can be conveniently railed to Sydney and Melbourne, or any destination. Considerable quantities go far north, into Queensland; the export trade is increasing. Batlow's "Mountain Maid" fruit is becoming favorably known on the markets of the Old World.

The soil hereabouts is of a volcanic origin,—a reddish loam going down to a depth of 40 feet. It has been found quite unnecessary to lay underground pipes for drainage. The natural drainage is ample. That this has had a good testing out will be realised when it is stated that the average annual rainfall is 45 inches.

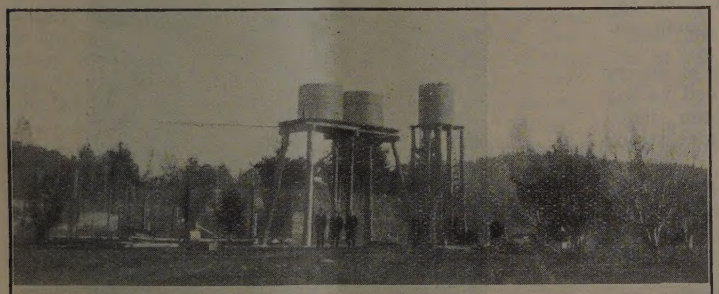
During the visit of delegates to the Cool Stores Conference at Batlow, opportunity was taken to visit some of the orchards in this locality.

Major A. J. Arnot has 70 acres under fruit. Despite the light crop this year, due to the thrips infestation this orchard has a crop of about 20,000 cases. The orchard is equally divided between Apples and Pears. The main varieties in Apples are Granny Smith, Jonathan, Yates, Five Crown and Pears, Winter Cole, Packham's Triumph, and Josephine. The orchard is planted on hill sides. The trees were noted to be in good heart. There is a considerable area of young orchard coming on. Mr. W. D. Arnot, son of the proprietor, is in charge of the orchard.

One of the largest orchards is that of Mr. A. E. Herring, where 112 acres is under fruit, principally Pears and Apples, Pears being in the ascendant, with 75 acres. The main varieties are Winter Cole, Packhams, Josephine and Williams.

At the 70 acre orchard of Mr. E. M. Herring, Apples and Pears are specialised, the Apples being Granny Smith, Jonathan, Democrat, Stayman, Winesap, and the standard varieties of Pears noted elsewhere, namely Winter Cole, Packham and Josephine.

So far it has not beeen necessary to do much in the way of artificial manuring; however, green manuring is practised, using oats and subterranean clover. It is on this orchard where many of the pruning demonstrations and field days are held. The house is situated on a jutting piece of land on a hill-top, with a magnificent view of mountains and valleys on three sides. The home garden is nicely set out with roses, maples and other shrubs, with a breakwind of pine trees.



Scene in the 70 acre orchard of Major A. J. Arnot, Batlow, N.S.W.

Section of the Batlow Cool Stores. Capacity 50,000 cases.

We noticed a nice lot of potatoes growing. These proved to be the popular variety, "Factor," which is grown largely hereabouts. Mr. Herring was successful in winning the Southern Districts Competition for potatoes. The local fruit inspector, Mr. E. C. Whittaker, directed attention to a fine specimen of Stayman Winesap Apple tree which produces about 20 cases annually of good quality fruit; this variety is a fairly even cropper year by year.

Mr. C. Buchele has 40 acres under orchard, the principal varieties being Granny Smith, Jonathan, Delicious and Democrat. The Pears include Winter Cole, Packhams, B. Bosc, Winter Nelis, and others. One tree of Winter Nelis was noted, which produced 22 bushels when thirteen years old.

Complete manures are applied at the rate of 10 lbs. per tree. In addition, green manures are turned under in the spring. For the purpose of green manure as a cover crop, oats are sown: these become established nicely before winter, and are more serviceable for the purpose than peas or other green crop, which are too slow growing.

Heavy crops of fruit are normally gathered in this orchard. Instead of using props to prevent limbs from breaking down, the trees are encircled with ropes.

It is on this orchard that the Department of Agriculture has been carrying out tests with spraying, using Bordeaux 6-4-40 (1) at green tip—early spur burst; (2) lime sulphur 1 in 14 at late spur burst or early pinking; lime sulphur 1 in 35 at calyx. Only once in the five years was there any russetting as a result of spraying with Bordeaux. This programme gives practically complete immunity from black spot.

Tests with spraying were carried out with lime sulphur alone, particulars of which will be published later. It was of interest to visitors to note the plan on which this orchard was laid out. The trees are planted in single rows, for instance there is a row of Jonathans, next to which is a row of Delicious, and followed by Granny Smith, and Democrat; then repeating.

In answer to a question from a visitor regarding spraying, Mr. Buchele pointed out that the time for spraying was practically synonymous, and spraying was carried on simultaneously, without any distinction having to be made for these particular varieties. Spraying on this orchard is carried out with a Hardie spray pump conveying a 200 gallon vat.

On this orchard were noted also a number of cherry trees. The Early Lyons was found to be a good variety when worked on the Kentish stock. It had been noted that Cherries worked on the Mazzard stock made strong growth, but did not bear freely.

Colonel Wilkinson has a 15 acre orchard. Apples and Pears are grown, Apple varieties including Jonathan and Five Crown: from the 90 Winter Cole trees, 300 cases were picked this season. Last season was a light one: from this orchard the crop was 1,200 cases.

Mr. N. R. Herring has 70 acres under Apples and Pears, Apples predominating, the varieties including Granny Smith, Yates, Democrat. The Pear varieties are Winter Cole, Josephine, Packhams, etc. Green cover crops are grown for turning under in the spring.

From the 30 acre orchard of Messrs. Butz Bros., Apples and Pears were sent to the Royal Agricultural Show at Sydney, and scored heavily in the prizes. This orchard is mainly for growing Apples, the varieties being Granny Smith, Jonathan, Five Crown, Dunns, Delicious and Democrat, and the Pears, Packhams, Winter Cole and Williams. Nearby, Mr. O. J. Butz has a well-kept orchard.

In addition to the growers already mentioned, the following are growing fruit at Batlow, and are shareholders in the Co-operative Society. F. L. Artlett, C. C. Barberie, Buckinghams Ltd., J. A. Bartell, Miss M. Colquhoun, J. E. Dodds, C. Griffiths, J. G. Pursell, H. G. S. Mouat, J. W. Howie, H. O. Quarmby, J. R. Quarmby, N. L. Quarmby, R. H. Quarmby, H. H. Robinson, F. L. Robinson, W. W. Robinson, T. W. Robson, L. Segal, H. V. Smith, G. Smith, G. Smith, Junr., C. McD. Stuart, J. I. Stuart, Sunnyside Orchards Ltd., Charles Smith, Miss S. E. Velvin, P. E. Thompson, G. Temple, T. Walker, Wilkinson Bros.

. . . . . .

There is much land yet available at Batlow for growing fruit. In fact, the farseeing men in the industry realise that in this locality there will be big developments. The soil and climatic conditions are eminently suitable for fruit growing, particularly that superlative Apple, Granny Smith. The district has developed, too, because of the splendid class of settlers. The growers are business men of broad culture: they know the value of the district co-operative enterprise and the value of scientific research and improvements.

When it is realised that suitable land is available at about £6 per acre, it may be taken for granted there will be big developments hereabouts. Certainly this land needs to be cleared: but the trees are ringbarked and the clearing could be done for around £10 per acre. Thus, to get first-class "Granny Smith" orchard land at £16 per acre, would seem to present an opportunity.

Ten-year-old Granny Smith Apple tree at C. Buchele's orchard, Batlow, N.S.W. Crop, 18 bushels.

A PLACE FOR EVERYTHING.

Father: "Why were you kept in at school?"

Son: "I didn't know where the Azores were."

Father: "Well, in the future just remember where you put things."

BATLOW COOL STORES AND PACKING HOUSE.

A Well Conducted and Prosperous Co-operative Society.

POSSESSING probably the longest name of any fruitgrowers' organisation in Australia, the Batlow Packing House and Cool Stores Rural Co-operative Society Ltd. is a substantial and well managed enterprise.

The cool store has a capacity of 50,000 cases, and is usually filled twice during the season. The packing house is well laid out, and splendidly equipped with graders, roller conveyors, and all facilities for rapid packing of fruit; while the other section of the business has to do with fruitgrowers' requisites—the supplying of sprays, implements, manures, and the like. The general manager is Mr. H. V. Smith, whose business capacity and untiring energy have won for him the confidence of all.

. . . . .

The foregoing is a rapid summary of this fine enterprise tucked away in the hills around Batlow, about half-way between Sydney and Melbourne.

Now for some additional details. The cool store was commenced in 1923, with three chambers having a total capacity of 8,000 cases; in 1924, chambers were added, increasing the capacity to 13,000 cases. From then onwards the store has grown until to-day there are thirteen chambers possessing a total capacity of 50,000 cases. Some of these chambers hold 3,000 cases, others 4,500: the cases are stacked nine high, allowing ½in. between the sides and 1in. at the ends. Cooling is by the air circulation system. Pears are stored at 29 deg. Fah., and Apples about 32-34 deg.

A 25 ton Linde compressor is run by a 100 h.p. Blackstone crude oil engine. This equipment is used for the warmer periods of the year. At the other times the smaller plant which has been installed is used: this consists of a ten ton Linde machine run by a 28-32 h.p. suction gas plant. Electricity is generated to run a motor for the lighting.

The engineer and manager of the cool stores is Mr. H. Patchell. The packing house is a commodious, well-lighted and carefully planned building, having an area of about 120 feet square. Two "Ideal" (American) graders and one "Lightning" grader have been installed. The last-mentioned works on the well-known principle of the fruit travelling along the side of graduated rollers, the fruit falling into bins as soon as the tapered size is reached at which the fruit is released. With the "Ideal" grader the system is entirely different. The fruit is placed in pockets (or holes) in travelling belts: at right angles to this are smaller belts placed at varying spaces above the line of travelling fruit. As soon as the fruit comes into contact with one of these right angle belts it is gently rolled into its appropriate bin.

Apples were being graded at the time of our visit: in order to have the fruit thus automatically sized, two travelling belts were utilised: girls examined the Apples and placed them on the first or second belt, according to the grade of the fruit, one belt being used for "special" and the other for "standard": the Apples were placed on their "edge" or circumference, one belt fed the bins with "special" quality, and the other belt supplied the "Standard" fruit.

For packing Granny Smith Apples, oiled wraps—imported from U.S.A. are used. When being packed for cold storage these Granny Smith Apples are kept in cases in shed storage for a month. The fruit is then enclosed in oiled wrappers and placed in cold store, and later repacked for sale. This practice has been found best for keeping fruit for storing till late in the season. All other varieties go into cool store straight from the tree—loose in cases.

Jonthan Apples were being graded, wrapped and packed at the time of our visit, the first quality fruit is wrapped in pink paper, second quality in yellow, and the third quality in white. Because of the excellence of this pack, buyers are able to operate in long lines with confidence.

The Canadian standard type of case is used throughout for local, interstate and export trade and for both Pears and Apples. Both imported softwood and local hardwood timber are used for the making of cases. The locally-grown messmate timber, after being seasoned and dressed, makes a first-rate case. All the Apples are packed by number, according to standard packing charts. In New South Wales, Apples are sold retail by number, not by weight: thus a buyer knows exactly how many Apples are in the case, the price he can pay wholesale, and also as to what he can obtain retail to show his margin of profit. Each packer has a number, and alongside each bin there is a rubber stamp with which the cases are marked, showing the number of fruits therein.

The wrapped and packed Apples are taken by roller conveyor to the nailing down machine. Sheets of corrugated cardboard are used on sides and top and bottom, to prevent bruising. A bulge of ¼ to ⅜in. top and bottom is usually left, but a high pack is not approved of. The system of labelling is very interesting. The colored label is well designed, the figure of a girl being shown holding an Apple, while the title "Mountain Maid Fruit" is given prominence. This label is now used, however, on cases containing the "standard" fruit, an improvement having been effected for the cases containing the "special" quality. For the last-mentioned, a transfer is used. These transfers are placed on the smooth ends of the cases, and on application of moisture and heat, the design comes out perfectly, the appearance is most attractive: there is this advantage, too, that the transfer design remains on the wood, and is not subject to be torn or defaced as is possible when paper labels are used. The cost works out at about the same price as the labels.

The Batlow Packing House is well designed; the system of roller conveyors is such that the handling of the fruit is a continuous process. On delivery to the packing house the grower's fruit in cases is stacked, each case carrying the grower's number. All the fruit under that number is dealt with before handling the next stack. Records are kept as to how the fruit packs out—"standard," "special," "plain" and culls. The grower has a right to deal with his fruit as he wills—to send it to his own agents in Sydney, Melbourne or elsewhere. This freedom of choice, however, is being used less and less, as the packing house has developed a valuable selling organisation. Each grower receives the price his own fruit realised, pooling having been discarded some three years ago, after an extensive tryout. As all fruit is sold under the one label (carrying grower's initials on same)—there are very often several growers represented in the one sale.

The average packer will pack ten cases per hour; the employees are on a weekly wage (not piecework), and average a pack of 480 cases per week of 48 hours, which works out at 2½d. per case. Mr. R. Morton is the foreman in charge of the packing house. Packing charges

are case 1/1 all other 10d., total 1/11, plus a selling commission where fruit is sold by the Society.

It was a nice experience for the directors and executives of the Batlow Cool Stores and Packing House to have the pleasant words of commendation from the interstate visitors. The packing house was described as the most efficient of its kind in Australia. The directors and executives of the Batlow Packing House and Cool Stores Rural Co-operative Society Ltd. are as follows:—Messrs. A. J. Arnot (Chairman), C. Smith (Vice-Chairman), C. Buchele, H. H. Robinson, J. E. Dodds, E. M. Herring, N. L. Quarmby, H. V. Smith (General Manager), H. Patchell (Engineer and Manager, Cool Stores), T. A. Hudson (Secretary).

At the annual meeting held at the end of April, the report, which was adopted, stated that approximately 95,000 cases of fruit were placed through the cool stores in the 1931 season; rents and loan levy amounted to 2/1 per case space, a reduction of 2d. over the previous year. In the packing house section approximately 95,000 cases of fruit were packed, the average price f.o.r. Batlow (inclusive of 8,700 cases sold at low figures for jam and cull sales), 7/2. Hail damage affected the quality of all fruit except three or four lines. Total quantity of fruit trucked from the Society's siding approximating 120,000 cases.

A rebate of 3d. per packed case on "special," "standard," and "plain" grades has been made to packing house shareholders—the total sum amounting to approximately £1,100.

The balance sheet shows shares issued, 41,214 less uncalled 30,600, this leaving the called up share capital at £10,594. Loan levy for Cool Stores and Packing House £11,381, this really being part of the share capital. Commonwealth Bank £13,657, sundry creditors £5,471. The principal assets are as follows:—Land and building packing house, £1,989; land and plant cool stores, £17,427; plant packing house, £1,334; plant cool stores, £4,670; sundry debtors and goods on hand, £7,930; cash in hand and at bank, £8,031. The report states that the bank overdraft was £5,625 at December, 1931, as compared with £10,825, at December 30, 1930. The closing of the Rural Bank resulted in some £2,000 of working capital being rendered unavailable; the Society being £4,500 below the overdraft limit when the bank closed.

NEW SOUTH WALES.

The following report for the month of April, 1932, is to hand from New South Wales Department of Agriculture:—

Fruit.—Inland: Generally, very favorable conditions prevailed. Bud development of Apple and Pear trees appears to be satisfactory, and on Cherry, Peach, Plum, Prune and Nectarine trees the budding is very promising. Present indications are that good crops should result next season.

In the Orange district some Cherry trees that became defoliated during the dry conditions from December to early March have burst into leaf again, but it is unlikely that these trees will carry much fruit next season.

Citrus.

Coastal.—The marketing of citrus is proceeding. Development of the fruit appears to be generally satisfactory. Lemons are growing well, and some large green fruit is being marketed at remunerative prices.

Mandarins are being harvested. In a few districts crops appear to be later than usual. Hail at Kurrajong was responsible for reducing yield prospects of this crop.

Inland.—On the Murrumbidgee irrigation area, yield prospects of Navels and other Oranges have been maintained. In isolated groves some hail damage is apparent. Navels are stated to be maturing about two weeks earlier than usual. The fruit appears to be of fine quality with a smaller percentage of extra large sizes than in former years.

TRADE WITH GREAT BRITAIN.

Development of West Coast Ports.

In an interview with Captain W. J. Wade, representing the Port of Manchester, on his recent visit from Sydney, he pointed out that there has been a progressive development of trade in Empire products in the North and Midlands sections of England as served by the west coast ports.

The effective propaganda of the Empire Marketing Board, the Producers' Boards, and the Australian Overseas Trade Publicity Committee have had telling effect. Already New Zealand has developed a trade of considerable magnitude in butter, meat, and other commodities through the west coast ports.

Australian producing interests are now alive to the importance of this trade. Capt. Wade points out that Manchester is the logical centre for distribution to an immense population.

Australian canned and dried fruit, also butter, is now being sent in larger quantities to the west coast ports, and this trade has great possibilities for development.

Attention was directed to one notable instance in relation to development of Empire sentiment and trade. The Mayor of Bolton, a city of 160,000 population, at a public meeting signed an undertaking that he would use only Empire products for one month. This action was promptly followed by 50,000 people in the Bolton area.

As this is typical of similar propaganda elsewhere, the imagination can quickly conceive of the immense benefits which will follow. Already, as stated, this has been translated into commercial activity and the provision for the delivery of the supplies through the ports nearest to the consuming area.

Various distributing organisations in the Manchester area have combined to foster this Empire trade development.

With regard to fresh fruit, Manchester is noted as a favorable centre for distribution, and it is hoped that when the new season's programme is being arranged, sufficient ships will be engaged to cater for this trade.

Tasmanian Apples in Melbourne.—There was not a very keen demand for Tasmanian Apples during last month, and large quantities arriving in Melbourne were placed in cool stores to await better prices. The prices ranged during May from 6/6 to 9/-.

Orchard Sprays Pty. Ltd.—We are notified of change of address of Orchard Sprays Pty. Ltd. (manufacturers of Lion brand sprays), from Cremorne-street to 549-51 Church-street, Richmond. Messrs. Cameron, Sutherland & Seward Pty. Ltd., Riversdale-avenue, South Melbourne, are also distributors of these sprays.

Fruitgrowers' Cool Stores Association.

Successful Conference at Batlow, N.S.W.

Association Activities to be Enlarged.

THE FOURTEENTH ANNUAL CONFERENCE of the Fruitgrowers' Cool Stores Association of Victoria was held at Batlow, N.S.W., on May 11 and 12, 1932.

There were present:—Messrs. A. J. Arnot, J. E. Dodds, E. M. Herring, C. Smith, N. L. Quarmby and H. V. Smith (Batlow); Frank Moore (Blackburn); W. Mock, G. F. Fankhauser, A. R. Fankhauser, P. Mock (Burwood East); R. J. Lorimer, Albt. E. Collins, J. E. Wilson and R. M. Finlay (Diamond Creek); J. J. Tully, R. E. Petty and F. W. Rieschieck (Doncaster, Central); J. H. Lang (Harcourt); Aug. Thiele, Frank Petty, J. J. Tully, L. Tully and —. Petty (orchardists); A. Hein (Pakenham); W. J. Williamson (Portland); H. Pump, W. Mackinlay and J. G. Aird (Ringwood); T. W. White (Somerville); F. J. Byrne, H. Gosbell, T. Gosbell (Wantirna); A. E. Hocking (Graceburn Valley); E. H. Hatfield, —. Hatfield, Jnr. (Tynong), and the Secretary, J. G. Aird.

Visitors.—Messrs. C. G. Savage, Director of Fruit Culture, N.S.W.; J. M. Ward, Superintendent of Horticulture, Victoria; H. Broadfoot, Fruit Instructor, N.S.W.; E. C. Whittaker Fruit Instructor, N.S.W.; W. J. Williams, Markets Superintendent, Sydney; W. A. Thiele and G. F. Fankhauser, Southern Fruitgrowers' Association; R. Werner, Refrigerating Engineer, Victoria; R. E. Boardman, Secretary Australian Apple and Pear Export Council; also a large attendance of fruitgrowers and shareholders of the Batlow Packing House and Cool Stores Rural Co-operative Society Limited.

On Wednesday afternoon delegates were met by the directors of the Batlow Packing House and Cool Stores, and entertained at afternoon tea by Mrs. Arnot, afterwards an inspection of the cool stores and packing house was made by the delegates, the general lay-out for efficient working was favorably commented on by delegates, who were then taken to the homes of Batlow friends who were kindly accommodating them for the duration of the conference.

At 8 p.m., Mr. J. M. Ward, Superintendent of Horticulture, addressed a crowded meeting of delegates and fruitgrowers in the Literary Institute, his subject, "The Apple Industry of Australia" illustrated by lantern slides being greatly appreciated. Mr. Ward traced the growth of the industry from the introduction and planting of Apple trees in New South Wales in 1788, and Tasmania in 1792 to the present day, the growth of the export trade in Apples was emphasised. A number of questions were asked and satisfactorily dealt with.

On Thursday, May 12, at 9 a.m., the President, Mr. A. E. Hocking, took the chair.

The motion tabled, viz.: "That, in view of the sound financial position of this Association, and the difficult period at present being experienced by affiliated stores, also with the view of extending relief wherever possible, the affiliation fees for financial year 1932-1933, be at the nominal figure of 5/- per each constituent member," was withdrawn after discussion in favor of a motion, viz.: "That the subscription as affiliation fees for the

Delegates and visitors at the Cool Stores Conference, Batlow, N.S.W.

Some of the interstate visitors among the fruit trees.

year 1932-1933 be 50 per cent. of the past year's fees." Carried.

Association's Scope Enlarged.

It was resolved: "That the present rules governing the name, objects, and general management of the Association be and is hereby rescinded, and that the proposed new rules as submitted to delegates with any alteration or amendments decided on by this Conference, be adopted."

The new rules are as follows:—

Name.—The Orchardists' and Fruit Cool Stores' Association of Victoria.

Objects.—Mutual help in regard to growing, storing, marketing fruit, and the general welfare of the fruit industry.

Membership.—All orchardists' associations and fruit cool stores shall be eligible for membership.

Affiliation Fees.—Affiliation fees shall be fixed by the annual conference in each year.

Affiliation fees shall be due and payable on July 1 in each year.

Meetings.—Meetings shall be held once in each quarter and at such other times as the Executive shall decide or at the call of the President. Each Affiliated Store and Association may send two delegates to the quarterly meetings. Directors, shareholders, proprietors, secretaries, engineers and association members shall be eligible to attend the annual conference.

At all meetings when a division is called for fruit stores and associations shall have one vote for each full £1 paid as affiliation fees, but the maximum votes that may be recorded by any affiliated store or association shall be six votes.

Officers.—President, Immediate Past President, two Vice-Presidents, Secretary and Treasurer (combined). These officers shall form an Executive Committee.

Committees.—Committees or sections may be formed to deal with special interests of the members of various branches of the industry.

The membership fees for orchardists' associations was fixed at £1 for the year 1932-1933; affiliation fee for other fruitgrowers' welfare associations to be £1 for the same period.

Address on Cool Storage Experiment.

Mr. C. G. Savage gave a very interesting address on the various cool storage experiments being carried out by the N.S.W. Department of Agriculture. Much detail work had been done in regard to the storage of Passion Fruit, also Apples and Pears.

The annual graph of comparative working costs prepared by Mr. J. W. Barrett was introduced for discussion. Also the tables on crude oil and electric running costs, this detailed information was appreciated by delegates. A vote of thanks was recorded.

Other resolutions carried were:

"That the high charges for electricity prejudicially effect the costs of primary producers."

"That, in view of the necessity for lower production costs in the Apple and Pear industries, the Federal Government be requested to remove the Sales Tax on spray materials."

"That the Federal Government be requested to remove lime used for manurial purposes from the operations of the Sales Tax."

"That the Federal Government be requested to remove or reduce the duty on all raw materials used in the manufacture of sprays and spraying materials used by orchardists for fruit trees.

Apple By-products.

The merchandising of Apple and Pear by-products had been receiving consideration during the past year. The results of some observations and experiments by Mr. E. H. Hatfield was circulated amongst delegates. The President also gave a resume of his enquiries, pointing out that there appeared to be a profitable outlet for the disposal of Apple juice, the question was freely discussed by delegates. Messrs. Hocking and Hatfield were thanked for their efforts.

Interest on Loans.

It was resolved that the Executive consider the advisability of requesting the Government to amend the Loan Agreement of the various stores to provide:—

(a) A reduction of interest in accordance with the Premier's Plan.

(b) An extension of time for repayment of principal thus reducing the amount due each year, to enable stores to lay up a reserve in a full year, and so meet their obligations during a slack year.

The Secretary reported that he had been verbally advised that the interest payable on loans under the Fruit Acts at present over the rate of 5 per cent., would be reduced for three years to that figure, loans at present paying 5 per cent. or less would not be reduced.

Official Opening.

Mr. C. G. Savage, Director of Fruit Culture, N.S.W., opened the Conference in the absence of the Minister for Agriculture.

The Conference adjourned for complimentary luncheon, tendered by the Batlow Cool Stores and Packing House Co., which was served in the Literary Institute by the ladies of the Country Women's Association, the chair being occupied by Major A. J. Arnot, Chairman of the Batlow Society. The function was a particularly happy one, and much enthusiasm was displayed.

During the afternoon delegates were shown round the district, visiting the orchards of Mr. A. J. Arnot, Mr. E. M. Herring, and Mr. C. Buchele, returning to the Scouts' Hall to resume the Conference.

Mr. H. Broadfoot, Chief Fruit Instructor, N.S.W., addressed the Conference on his observations during his trip to the United Kingdom to supervise a N.S.W. shipment of fruit during 1930. Mr. Broadfoot's address was of a practical nature and greatly appreciated.

Seasonal Operations.

It was decided to ask each cool store and Association to appoint an observation officer, whose duties will be to record weather conditions, such as rainfall and temperatures, also in the spring the stages of flower development of each variety of fruit tree.

Conference resolved to urge the abolition of the Federal and State Land Tax.

Export.—The Executive was requested to obtain details as to how the levy of three-eighths of one penny per case on all export fruit is to be disbursed, and report to the next quarterly meeting.

Office-bearers were elected as follows:—President, A. E. Hocking; Past President, W. Mock; Vice-Presidents, E. H. Hatfield, Frank Petty; Auditor, J. W. Barrett; Council Member to Chamber of Agriculture, J. H. Lang; Representative to Employer's Federation, A. E. Hocking; Representative to Southern Fruitgrowers' Association, J. G. Aird; Representatives to Victorian Fruit Council, A. E. Hocking, E. H. Hatfield; Secretary and Treasurer, J. G. Aird.

Cool Storage Systems.

A question was handed in during the Conference, viz.: "It is desired that this Conference give some expression of opinion as to the most advantageous system of cool storing fruit, e.g., by direct expansion or air circulation systems."

This question created very keen discussion, a number of delegates gave their experiences of the respective systems installed at their stores, the main claims advanced in favor of direct expansion was that it did not require as highly a qualified engineer to take charge as was necessary for air circulation; another claim was that fruit was not so liable to shrivel, and did not lose so much weight. It is regretted that, on account of the poor season, the loss of weight tests could not be carried out this season under both systems.

Cordial votes of thanks were expressed to the chairman, Mr. Hocking, the Auditor, Mr. Barrett, and the Secretary, Mr. Aird.

A paper contributed and read by Mr. E. H. Hatfield, viz.:—"Cross Pollination of Fruit Trees," was keenly discussed by the Conference, much useful information being made available during the course of the debate.

Batlow Society Thanked.

It was resolved that this Conference places on record its very great appreciation of the Executive of the Batlow Packing House and Cool Stores Rural Co-operative Society Limited, in arranging for the Annual Conference of this Association, to be held at Batlow, and it further records its gratitude for the generous hospitality extended to visiting delegates, also to Mr. Ross, Scout Master for the use of the Scout Hall.

Major A. J. Arnot, Chairman of the Society, Mr. J. E. Dodds, Chairman of the Cool Stores, and Mr. E. M. Herring, Chairman of the Packing House, replied on behalf of the Batlow Society.

BRUSH FARM NURSERY, ERMINGTON, N.S.W.

F. E. Spurway & Sons, Proprietors.

The nursery business of F. E. Spurway & Sons is carried on at Marsden-road, Ermington, N.S.W., and the orchard is at Nashdale, Orange, N.S.W.

Mr. Spurway has made a life study of fruit tree and Rose production, and has established a good name for the class of products submitted. Specialising in citrus trees for the ensuing season, adequate stocks are available to meet all demands. All these trees have been produced from selected and approved buds. Owing to the assistance of Mr. Spurway's son, an experienced plantsman, the Brush Farm Nursery assures planters that they can depend upon high-class products.

BIG TASMANIAN APPLE CROP.

With a splendid crop of about 5,000,000 cases of Apples this season, the Tasmanian fruitgrowing industry is tremendously active. Over 3,000,000 cases are being exported to overseas markets, leaving most of the balance for interstate trade.

Prices overseas plus exchange are generally satisfactory. The Australian markets are holding up well. It looks like a year of prosperity for Tasmanian fruitgrowers.

Mr. A. J. Honey, Secretary of the Tasmanian Farmers, Stockowners and Orchardists' Association, and Secretary of the Tasmanian State Fruit Advisory Board is visiting Adelaide early in June to attend the Graziers' Conference.

CANNED FRUITS.

1932 Season's Prospects.

IN REVIEWING the 1932 season's pack of canned Apricots, Peaches and Pears, the processing of which has just concluded, the Minister for Commerce (Mr. C. A. S. Hawker) stated that, although the output reached greater dimensions than was anticipated earlier in the season, the pack, particularly in Apricots and Peaches, was below normal. An average pack should yield the equivalent of about 2,750,000 doz. 30 oz. tins, whereas the 1932 output was 2,308,000 doz. tins. This total comprised 364,000 doz. Apricots, 1,064,000 doz. Peaches, and 880,000 doz. Pears.

The Apricot and Peach crops had been substantially reduced, mainly through adverse climatic conditions experienced during the winter of 1931. The Pear pack, however, was of record dimensions, and easily eclipsed the previous highest total of 789,000 doz. tins established during the 1928 processing season.

The quality of the fruit was excellent, and 75 per cent. of the total pack had been packed under the supervision of departmental inspectors, and passed as suitable for export from Australia.

Commenting on the export position, Mr. Hawker said the favorable exchange and other factors had been instrumental in setting up a strong demand overseas for Australian canned fruits, the quality of which had already been favorably recognised. It is unfortunate, however, that the stock position in Australia was such that these demands could not be fully met.

Great Britain is the world's largest importer of canned fruits, and absorbs over 3,000,000 cases (each containing 2 doz. tins) of canned Apricots, Peaches and Pears annually. This year, it is estimated that Australia will have available about 420,000 cases for the British market, as against 890,000 cases sold on that market during 1931. Clearances from the current season's export quota have been satisfactory, and the prices realised are on a higher level than those returned in recent years. The Canned Fruits Control Board announced its opening prices on March 18 last, and to date approximately 325,000 cases have been sold. There has been practically no consignment shipments this season—all of the sales have been effected on a "forward delivery" basis.

The Canadian market has proved very disappointing during the past year, and sufficient unsold stocks are being carried there to meet any demand which may arise until the 1933 season's fruits are available. In an endeavor to stimulate sales in the sister Dominion, an intensive advertising campaign on behalf of all Australian canned fruits is being launched by the Canned Fruits Control Board and other canned fruits interests.

Australian canners should have little difficulty in holding their New Zealand trade, which last year reached a total of 85,500 cases. One of the most pleasing of recent developments is the more active interest being taken in Australian fruits in Eastern countries. Competition by California has always been severe, and it has been difficult for Australian exporters to establish a footing on these markets. In 1929, our exports to all Eastern countries were 6,350 cases. During 1931, this trade was increased to 13,470 cases, and it is confidently expected that the total for the present season will be appreciably higher.

You must not judge a man by the silk umbrella he carries; he may have left a cotton one in its place.

FRUIT CROP PROSPECTS IN VICTORIA.

In the seasonal report issued by the Victorian Department of Agriculture, received in mid-May, the following is stated:—

Deciduous Fruit.—Reports from all district supervisors are to the effect that bud development of deciduous fruit trees is particularly good. It was expected that Apple trees would promise well after the light crop of the season just passed, but Pears, which bore heavily, particularly in the Northern irrigation areas, also promise a heavy crop.

With the exception of the trees which suffered owing to the abnormally wet winter, Apricots and Peaches have filled out their buds well, and the prospects of a good crop are very promising. The trees have made a good growth during the autumn, and there is an abundance of fresh bearing wood.

Prunes, which bore a very light crop last season, appear to be in a good condition, with new growth and well-developed fruit buds.

Cherries in the Southern districts, where they are chiefly grown, are looking well and given normal conditions should bear a heavy crop.

Doncaster growers anticipate a heavy crop of all fruits next season, and old growers are strengthened in this belief by the heavy blooming of Loquats.

The Passion Fruit crop has not realised earlier expectations. Throughout the Wandin and Silvan districts it is not expected to harvest more than 35 to 40 per cent. of a normal crop. The conditions in other Passion Fruit growing districts are very similar, the crop being light and very late.

As was expected, Apples are not keeping well in cool storage. This applies particularly to oversized fruit of which there was a larger quantity than usual, owing to the light crop. There has been a tendency to develop water core, pit, and internal breakdown. Doubtless the heavy autumn rains were also a factor in this regard.

Viticulture.

The autumn has been abnormally wet. In the wine districts of the North-East, vintage started very late, and by the end of April many vineyards had not completed picking. Must gravities are naturally on the low side; in some cases very much so, but, on the whole, the Grapes are in better order than one might expect. There is some mould, but little of it is of the objectionable blue type. Grey mould is much less harmful, especially to white wine, though it injures the color of red wine.

The dropping of berries during picking has been a feature of the season. Two handled trays, about 1 ft. x 2 ft. with 3 in. sides, have been largely substituted for the ordinary Grape tins; they save much fruit.

In the North-West, similar undesirable conditions have prevailed; it has been a very unsatisfactory drying season.

Dehydration is receiving much attention. In addition to a few large machines, ingenious home-made dehydrators, such as the so-called "incubator," have been successfully used for finishing off.

Citrus.

Consignments of this season's Thompson's and Washington Navels are now arriving on the Melbourne market in fair quantities from interstate and early Victorian districts. The quality, generally speaking, is very fine, but some Thompson's Navels are lacking in juice.

Disregarding the warning issued towards the end of April by the Department of Agriculture, some growers forwarded immature fruit. Such fruit was submitted to the alkali test and many lines were rejected by the inspectors. Both interstate and local fruit is being tested and any fruit not passing is prohibited sale in Melbourne. Growers who are forwarding consignments are advised to have same tested before despatch. It is advisable to omit all large counts (small sizes) of Oranges from early consignments unless it is known that they will comply with the maturity regulations.

Some small lots of Grapefruit are being harvested. Citrus growers are strongly recommended to refrain from picking this season's Grapefruit at such an early date. When an effort is being made to educate the consumer to acquire a taste for Grapefruit it is a decided mistake to market this type of fruit until it is at its very best.

With the approaching season at hand, a timely warning may be necessary regarding the sale of fruit infested with red scale. Inspectors and supervisors have very definite instructions on these matters, and growers who endeavor to market such infested fruit will find themselves courting an additional expense.

The late consignments of Valencia Oranges this year and an abundant supply of early Navels have been partly responsible for the depression in price of this season's fruit. When the early Navels commenced to arrive prices were very encouraging, but these fell away quickly.

Harcourt.—Much anxiety is being felt by Harcourt fruitgrowers with regard to the low state of the Malmsbury and Coliban reservoirs, and enquiries are being made to the Water Supply Commission to ascertain how low the water in the storage basins would need to be before the supplies for irrigation would be cut off.

The growers are endeavoring to have the worst portions of the irrigation channels cemented, as it is contended that much water is wasted by the bad state of the channels.

Last year, although there was a light fruit crop and there was a plentiful supply of water, growers, particularly in the North Harcourt area, were unable to get full supply for irrigation. Grave concern is therefore felt with regard to the position when the crops are heavy.

The urgent need for a thorough overhauling of the system is being brought under the notice of the Water Supply Commission and the Parliamentary representative of the district.

"THE POULTRY WORLD."

Those who keep poultry, and they are an ever-increasing number amongst orchardists to-day, will now be turning their attention to the hatching season. It is a busy time, but they will find much helpful information in the special hatching season issue of the "Australasian Poultry World" now obtainable for 6d. per copy at all bookstalls or direct from the publishers—Horticultural Press Pty. Ltd., 78a Victoria-street, Melbourne (6/- per annum posted).

Amongst the special features of the June issue are hints on operating an incubator, Attention to Breeding Stock, the Importance of the Male Bird, N.U.P.B.A. State Conference at Bendigo, Show Reports and Egg-laying Tests, and special sections devoted to Bantams, Pigeons, and aviary birds. The issue contains much valuable information on poultry breeding generally, and is attractively written as well as illustrated. A specimen copy may be obtained on application to Box 1944, G.P.O., Melbourne.

The Victorian Fruit Marketing Association.

THE monthly meeting of the Executive of the Victorian Fruit Marketing Association was held at the Commercial Travellers' Association, Melbourne, on May 27, Mr. J. W. Bailey presiding. There were also present:—Messrs. Colombie, Brown, Hutchinson, Lawford, Webb, Harrison, Carne, Cave, Eagle, Jost and the Secretary. Mr. J. M. Ward and E. Meeking, Department of Agriculture, were also in attendance.

Apologies were received from Messrs. Ford, Mills, Parnham and Mellor.

British Spray Hose.—A letter was received from the Australian Association of British Manufacturers directing attention to the high tariff on British spray hose and stating that the Commonwealth Government was being approached with a view to getting the duty reduced. It was decided to write to the Federal Government, stating that in view of Great Britain being Australia's principal export market for fruit, this item of British spray hoses might receive consideration when preferences were under review.

Mr. W. A. Webb spoke favorably regarding the quality of British spray hoses. It was further decided that, should it be decided to bring this item before the Tariff Board, the Association will be prepared to give evidence in favor of tariff reduction.

Illness of Mr. C. J. Parnham.—It was reported that Mr. C. J. Parnham was seriously ill, and it was decided to write to Mrs. Parnham expressing sympathy. Motion, Messrs. Bailey and Cave.

Empire Preference.—Mr. Brown reported a meeting of the Executive of the Australian Apple and Pear Export Council had been held on May 25. All the States except Queensland were represented personally or by proxy. Nominations had been received for Messrs. Neil Campbell (Tasmania), McGibbons (South Aust.), and J. B. Mills (Victoria). The meeting accepted the nomination of Mr. Mills and agreed that the money for expenses should come from the three-eighths of a penny inspection levy, provided that a letter be obtained from the Dept. of Commerce to the effect that money raised by means of inspection levy could be used by the industry concerned for special purposes.

Mr. Colombie stated that South Australia held with the view that it was not legal to use the money raised for advertising for the purposes of sending a delegate to Ottawa. He had, however, concurred in Mr. Brown's resolution at the Apple and Pear Export Council meeting, to obtain something in writing from the Dept. of Commerce.

Mr. Bailey stated he did not approve of a delegate going to Ottawa unofficially, as such delegate might not be consulted by the official delegation at all. On the motion of Messrs. Brown and Jost, it was decided that subject to the receiving of a letter from the Commerce Department to the effect that it is the usual custom to reserve portion of the funds raised by inspection levy for special purposes this Executive approves of the allocation of the money from this fund for sending a delegate to Ottawa. Carried.

Inspection Fee on Rejected Fruit.—Mr. Harrison stated that inspection fee was being charged on rejected fruit and expressed strong disapproval. It was pointed out that the regulation provided for the fee being paid on fruit "submitted" for export. On the motion of Messrs. Colombie and Harrison, it was decided to write to the Department of Commerce requesting that regulation 12 of February 5 be amended by deleting the words "intended for export" and inserting "passed for export" instead, in paragraph 1 of clause 104, thereby making only exports of Apples and Pears subject to the inspection fee which are actually exported.

Overcharge on Railways.—Following on the letter received at the previous meeting from Mr. Harrison concerning the overcharge on Pears despatched from Narre Warren, letters were received from Harcourt Fruitgrowers' Progress Association Ltd., and F. R. Mellor, quoting similar instances. It was decided, on the motion of Messrs. Lawford and Jost, that a sub-committee consisting of Messrs. Webb, Mellor and Harrison, wait on Mr. Molomby, Railways Commissioner, at an early opportunity.

Freight on Pears.—A letter was received from the South Australian Fruit Marketing Association stating that the complaint re freight on Pears had been satisfactorily adjusted. The two half-cases wired together now being accepted as one case.

Rail and Motor Transport.—A letter was received from the Chamber of Commerce forwarding reports of Messrs. Heath and Harrison re rail and motor transport, and stating that a conference would shortly be called to go into these matters. It was decided, on the motion of Messrs. Brown and Jost, that Messrs. Webb and Hutchinson be appointed delegates.

Standardising of Fruit Cases.—The Council for Scientific and Industrial Research wrote, appreciating the letter from the V.F.M.A., in which the standardising of fruit cases was emphasised, and sending a copy of a programme of tests which had been laid down to test the strength and suitability of cases in which to export Apples. Tests were being made with both softwood Canadian cases and hardwood dumps. Mr. J. W. Bailey was appointed to confer with the C.S.I.R. in further experiments.

Agricultural Lime.—It was reported that agricultural lime was being sold at exorbitant prices: further, that the analyses were variable; some contained other minerals in harmful quantities. It was decided, on the motion of Messrs. Brown and Webb, that the Department of Agriculture be asked to take steps to have agricultural lime brought under the Fertilisers Act, so that on each bag there would be displayed the chemical analysis.

Field Day.—It was decided to hold a field day at Somerville and Tyabb on June 21. Meet at H. Barber's orchard at 2 p.m. Lecture by F. M. Read, Department of Agriculture (if possible). Pruning demonstration by J. W. Bailey and others. 8 p.m., lecture in the Tyabb Hall by Professor S. M. Wadham (if possible).

In reply to Mr. K. Eagle, particulars were supplied for a field day programme which could be carried through at Harcourt, at a date to be arranged.

IMPORTS INTO HONG KONG.

In a comparative statement of imports into Hong Kong for the year 1931, which is to hand from the Commonwealth Department of Commerce, the following figures are given:—Total imports into Hong Kong, value £39,900,000, of which Australia's share was £340,000. The following figures give the total imports, Australia's share being shown in brackets, thus:—Dried fruit, £186,760 (£5,700); tinned and bottled fruits, total £42,600 (£1,200); jams and preserves, total £13,900 (£2,300); fruit (all kinds), total 38,156 short tons (197 tons); Onions, total 6,870 short tons (8½ tons); essential oils, total £51,500 (£3,300); wines, total 30,243 gallons (50 gallons).

The approximate value of exports from Hong Kong to Australia for the year 1931 amounted to about £86,000.

DRIED FRUIT EXPORTS.

Melbourne (9/5/32).—The Commonwealth Dried Fruits Export Control Board, in a first advice as to the new season's crop, advise that the total shipments to date are as follows:—

To United Kingdom 17,690 tons, to Canada 4,180 tons, to New Zealand 1,149 tons, to other destinations 319 tons; a total of 23,338 tons.

The new season's fruit is now arriving on the English market and the following sales have been effected to date from these shipments:—

471 tons of Sultanas at an average price of £66/15/4 per ton, and 417 tons of Currants at an average of £53/8/8 per ton, sales to date recorded with the agency of the Board in London being 888 tons, valued at £53,687.

In a review of the position the Board anticipate that the total harvest will be slightly over 50,000 tons, and that the quantity available for export will be approximately 37,000 to 38,000 tons.

Of this quantity it is anticipated that shipments prior to the end of June to Canadian ports will amount in all to 12,500 tons and to New Zealand 2,500 tons.

It will be noted that the major portion of the fruit likely to be available for the British market has already left Australia, but it is possible that given satisfactory weather there may be from 25,000 to 27,500 tons available for the British market. As all the fruit shipped to Great Britain is of high grade quality, it is anticipated that there will be a steady market at very satisfactory prices.

The demand from the Canadian market favored by the advantage which Australia derives under the Reciprocal Treaty will exceed the quantity which can be allotted to that market.

In view the speedy realisation of this season's fruit, results and prices must be regarded as being the most satisfactory for some years past.

SULTANA SHIPMENTS.

Advice has been received from London by Mr. E. N. Seary, manager of the Renmark Fruitgrowers' Co-op., to the effect that several parcels of Sultanas ex "Mooltan" realised prices ranging from £66 to £76 per ton. To these prices must be added exchange, and the market is very strong (states the "Murray Pioneer"). Owing to the recent favorable drying weather, Mr. Seary reports that deliveries are back to normal. The quality of the fruit is much better than was expected. The bulk of the Sultanas coming in to the Renmark Fruitgrowers' Co-op. were of 3 and 2 crown, and Currants were maintaining a fairly consistent 2 crown. Mr. Seary also stated that no large quantities of dehydrated fruit had been received, most being sun-dried.

Mr. H. D. Howie now states that the estimated Australian crop would be nearer 50,000 tons than the 60,000 tons originally estimated.

ORANGE CROP IN SPAIN.

The production of Oranges and Mandarins in Spain for the 1932 season is estimated at 37,000,000 boxes, of which approximately 28,000,000 may be exported (states the U.S.A. Department of Agriculture).

The estimated crop is 500,000 boxes greater than the production last season, and over 5,500,000 less than in 1929-30.

MERBEIN CITRUS ASSOCIATION.

At the annual meeting of the Merbein Citrus Association held on May 18, Mr. R. H. Rodwell, who occupied the chair, congratulated the Association on winning the Challenge Cup for the best display of citrus fruits at the Mildura Horticultural Show.

Mr. C. H. Cameron (Organising Secretary) reported that during the year an exchange system was inaugurated whereby packers and private growers were organised and agreed on suitable prices for company orders and private sales, thus eliminating price-cutting. The system gave hopes of dealing effectively with the situation as well as strengthening the V.C.C.A. as a whole.

Officers were elected for the ensuing twelve months as follows:—President, Mr. R. K. Rodwell (re-elected unopposed); Secretary, Mr. A. D. Long (re-elected unopposed); Committee, Capt. D. B. Halhed, Major F. H. Goucher, Messrs. H. O. Symons, S. Brinsden, W. T. Hudgson, with the President and Secretary; Delegates to District Central Executive, Capt. D. B. Halhed and Messrs. R. K. Rodwell, A. Long and H. O. Symons.

Captain D. B. Halhed spoke of the excellent services of the President, who, in responding, paid a tribute to the work of Mr. A. D. Long, Secretary of the branch.

Red Cliffs.—There was a good attendance at the April meeting of the Red Cliffs branch of the A.D.F.A., when a resolution was passed to the effect that the Committee interview the packing shed management and ask them to make a charge for dehydration on the net dried weight.

DRIED FRUIT SALES.

Melbourne (23/5/32).—The Commonwealth Dried Fruits Export Control Board reports that shipments are being effected steadily to oversea markets, and shipments to Great Britain to the 19th instant cover 12,608 tons Sultanas, 7,547 tons Currants, and 301 tons Lexias, totalling 20,456 tons, as compared with shipments to the corresponding date last season of 18,578 tons.

During the past fortnight from the earlier arrivals of the present season's fruit, there have been sold in the British market, 755 tons of Sultanas, at an average of £65/8/4, and 316 tons Currants at an average of £52/6/8 per ton, according to figures registered at the London Agency of the Board.

TASMANIAN FRUIT PRODUCTION.

In a report issued by the Deputy Commonwealth Statistician (Mr. E. T. McPhee), is was stated that the production of Apples for the season 1931-32 would probably be about 4,750,000 bushels, and of Pears 295,000 bushels. Should the present prospects be realised, the current crop will be greater than the record of 1928.

The main varieties to be exported are as follows.—Sturmers, NYP (Cleo.), Jonathan, SNP (SPN), French Crab, Democrat (Tasma), C.O.P., Crofton, Granny Smith, Geeveston Fanny.

The estimated total of 295,000 bushels of Pears is made up of 121,000 bushels of canning varieties and 174,000 bushels of other sorts.

In his report, Mr. McPhee expressed appreciation for the services of growers who assisted him in preparing the statement.

THE CONTROL OF THRIPS

Results of Field Tests.

(By K. M. Ward, B.Agr.Sc., Assistant Entomologist, Victorian Department of Agriculture.)

(Published by courtesy of the Victorian "Journal of Agriculture.")

THE insect to which has been attributed the widespread light cropping of fruit in the 1931-1932 season is Thrips imaginis, Bagnall (Fig. 1). This species is indigenous to Australia, and we do not find reference to damage done by it in any other part of the world. Thrips tabaci, Lind., a very closely related introduced species, formerly considered to be identified with T. imaginis, is of world-wide distribution, but it is said not to occur in Victoria.

The first record of the appearance of thrips in vast numbers in Victoria was made by Mr. C. French, sen., in his "Destructive Insects of Victoria." In the spring of 1909 thrips infested the flowers of cape weed (Cryptostemma calendulaceum), but there is no record of their damaging fruit blossoms; Potato crops only appeared to suffer, the haulms being destroyed. Further outbreaks of magnitude occurred in the seasons 1913-14, 1914-15, 1922-23, 1926-27, 1931-32, each one apparently being more serious than the last, and on each occasion fruit blossoms were attacked. In 1926 extensive work to find a means of control of the pest was begun, but although 60 or more different sprays were tested none of the results was very promising. The work showed that the standard sprays and others were of little value in a heavy infestation, and, further, it emphasised the seriousness of the problem.

The recent outbreak is considered to have been the most serious yet. It extended approximately from the first week of October to the first week of December, and almost all plants which flowered during that period were attacked, even the flowers of various grasses. Further, the insects were found to be numerous, and apparently breeding in the growing parts of many plants ranging from bracken fern to Peach trees. The numbers of the insects were so vast that city offices and trams were invaded.

The Problem of Control.

The appearance of thrips in orchards, etc., is sudden. Invasion takes place some little time before the blossoms commence to open, and the damage is done, in most cases, before the blooms have burst. Fruit is prevented from setting by the damage the insect does to the vital parts of the flower—the pistil and stamens, these organs being destroyed before pollination and fertilisation can take place. It is practically impossible to reach the insects by means of sprays in the unopened blossoms.

Other factors which render control of the insect very difficult are (i) a large number of generations occur in one season; (ii) breeding and feeding take place on many host plants, and invasion from surrounding bush, etc., into orchards is easy; (iii) the sporadic occurrence of the insect limits field work to those seasons in which a plague occurs; and (iv) results obtained in one outbreak cannot be confirmed until the next.

Habits and Life History.

Thrips imaginis is present in flowers every year, but it does severe damage only when present in large numbers. In a blossom, each insect makes many gashes or cuts in the surface of the various organs, and in each cut the insect inserts its stylets, and the contents are sucked from the underlying cells. This results in the death of these cells, followed by the withering and death of the entire organ attacked. Thus the injury appears to be largely mechanical. Damage is done to other parts of the flower also, e.g., the petals, resulting in their death when thrips are numerous. To a less extent leaves also are attacked.

By means of a saw-like ovipositor the insect embeds eggs singly within slits in soft tissues of the flower. The young larvae on hatching feed actively, but full-fed larvae leave the plant and enter the soil to pupate. The pupa is almost inert and does not feed. The adult insect emerges from the soil and flies to a host plant. Under optimum conditions, the life cycle occupies about 21 days.

From observations in other years (e.g., J. Farrell, in this "Journal," March, 1919), it seems that the appearance of thrips in vast numbers is influenced greatly by conditions of high temperature and low rainfall in the early part of the season—September and October. Probably a winter with temperatures above normal would enable a larger proportion of the hibernating adults to survive till spring.

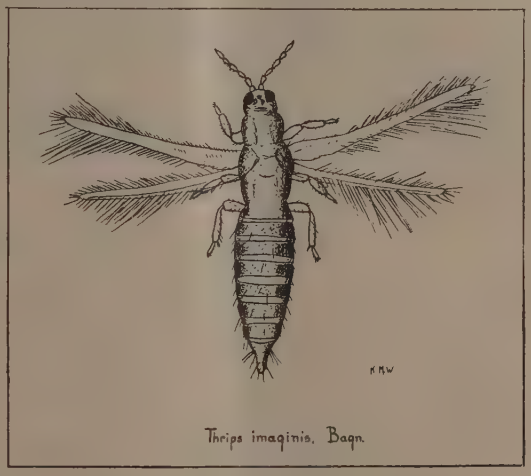


Fig. 1.—A Thrips—greatly enlarged.

Experimental Work in Victoria.

Further to the work of 1926 previously mentioned, experiments were carried out during the present season at Kalorama to test the efficacy of insecticidal dusts in decreasing the thrips population in Raspberry flowers sufficiently long to allow the blossoms to set.

Method.—A uniform patch of Northumberland Filbasket Raspberry canes three and a half years old was divided into eighteen plots, each containing sixteen canes. The site was particularly subject to infestation, being adjacent to native vegetation, other Raspberry canes, and a luxuriant growth of Yorkshire fog grass in which thrips were present in dense numbers. The treatments consisted of—

A. Plants dusted three times per week.
B. Plants dusted twice a week.
C. Controls—untreated plots.

Each treatment and the controls were replicated six times. Dust was applied by means of an intermittent knapsack blower. After dusting the rate of re-infestation of the blossoms by thrips was ascertained by making counts of the thrips in flowers gathered at random from the treated plots. Each flower was collected in a glass phial, the insects brushed out on to a piece of white paper and the live ones counted. Counts were made immediately before dusting at 1 hour, 3 hours, 6 hours, 24 hours after dusting, and every subsequent 24 hours until the next treatment. At each count collections were made also from the control plots. The treatments were carried on from the commencement of the flowering period until the thrips had naturally decreased to harmless numbers in the controls.

The dust used ("Nictar") was a proprietary preparation consisting mainly of nicotine sulphate in a dolomitic lime base. The rate of application was 1¾ lb. of dust to 100 plants. Before the harvest the percentage set of fruit on the treated and untreated plots was determined from counts of fruits on the canes.

Results.—The results on the rate of reinfestation are shown graphically in Figs. 2 and 3. The graph shows the fluctuations in the number of thrips in the blossoms in the treated and untreated plots throughout the period of the experiments. It is seen that on dusting there is an immediate decrease of about 90 per cent. in the number of thrips per flower. The majority of the insects fall to the ground and eventually die. They are rendered inactive at once, but death does not occur for from 30 minutes to 4 hours later. Apparently dead to the naked eye, the microscope reveals a twitching of the legs and antennae as slow paralysis takes place. In no case was a thrips observed to recover, even after a very light dose of dust.

Thrips soon begin to re-infest the blossoms, and at a rate which, at the end of 24 hours, brings the numbers back to 80 to 85 per cent. of those present before treatment. An exception to this occurred on November 25 after the first application of dust. In spite of the dust, the numbers rose very rapidly, and in 24 hours there were twice as many as there were before treatment. This rise corresponded with a great rise in the controls. In these plots on November 27 the lowest number of thrips per flower was 184, and the highest 346. This great increase probably coincided with the emergence of another brood of the insect. The sudden decrease on the 28th seemed to be partly due to dust being blown across the control plots during treatment of A plots.

It is considered that normal conditions of the plague prevailed until December 3, when in the course of a few hours, and partly due to a cold wind, the numbers fell very rapidly. The dusting was continued for another week, and from the results it appears that the dusts would be more effective in a lighter infestation.

The results from the plots dusted twice weekly are, in general, the same as those from the plots treated three times weekly. The difference in the set of fruit on the two was quite insignificant. In the B plots the rate of re-infestation was even more rapid, and the numbers rose higher between treatments.

The set of fruit on the different plots is shown below. As it is not known exactly what percentage of the blossoms set in a normal season, the figures show the percentage which set out of the total blossoms formed.

Plots.	Marketable Fruit.	Percentage of the Marketable Malformed.	Nonset.
A.	75.2	6.8	24.8
B.	73.1	9.2	26.9
C.	67.0	14.9	33.0

The following figures are averages of estimates as to what percentage of a normal crop had set in different properties in the 1931-32 season in the Mount Dandenong district:—

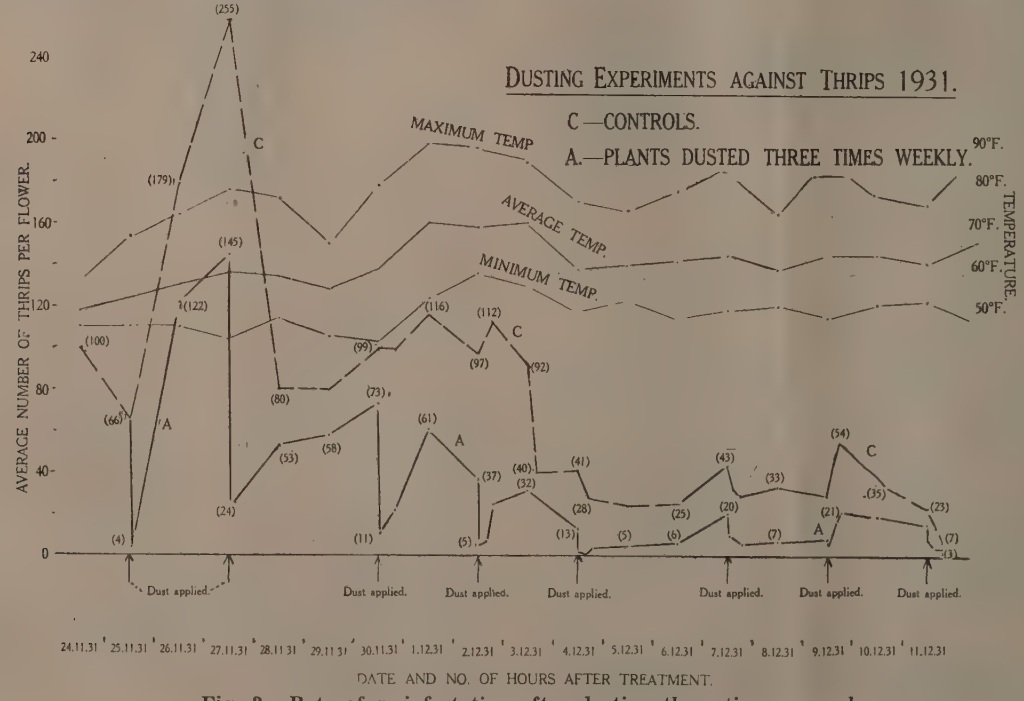


Fig. 2.—Rate of re-infestation after dusting three times a week.

Variety.	Percentage of a Normal Crop.	Approximate Flowering Period.
Raspberries—		
N. Filbasket	70	Nov. 20—Dec. 24.
Smith's Seedling	85	Nov. 21—Dec. 26
Child's Selected	78	Nov. 15—Dec. 18
Red Antwerp	25	Nov. 10—Dec. 14
Loganberries—		
Black Logan	0	Oct. to Nov.
Red Logan	3	Oct. to Nov.
Strawberries—		
Melba	1–20	Oct. 10—Nov. 20
Wilson's Pride	3	Oct 8—Nov. 20
Gooseberries	) Apparently little affect-	
Currants	) ed by Thrips. Oct.	

It is evident that the best crops set on those plants whose flowering period occurred largely outside the period of the thrips plague. Although the Gooseberries and Currants flowered during the plague they set good crops. This is explained by the fact that these fruits belong to a different botanical family (Saxifrageae), and have a different type of flower from the other fruits mentioned. The latter belong to the family Rosaceae.

In connection with the Strawberries, the following interesting facts were noted:—

1. Where a small plot in a bed of Strawberries was dusted by the Department early in the flowering period, and later followed by further dustings, 43 per cent. of the blossoms set into fruit. The rest of the bed was also dusted, but the early application was omitted. Here, only 2 to 6 per cent. of the flowers set.

2. In a small patch at Olinda, which received similar treatment, an 80 per cent. Strawberry crop (Melbas) and a 100 per cent. Raspberry crop were obtained. Unfortunately, no check plot was left on this property, but a neighboring patch of undusted Strawberries showed only a 6 per cent. crop.

3. In a bed of young Wilson's Pride Strawberries all the blossoms of the first crop were destroyed, but later on the plants threw out another set of blossoms which developed into a fair crop—30 per cent. normal. This intermediate crop is not usual in a normal season.

Other dusts tested were "Tendust," "N40" (both nicotine preparations), nicotine and sulphur, and a pyrethrum dust. Several sprays were to be tested at the same time, but were abandoned, as the poor penetration of the blossoms at the spray pump pressure available, and their poor repellant powers were unsatisfactory. There was little difference between the results obtained with the above dusts; the set of fruit on these plots was as good as that on the "Nictar" dusted plots. Although very efficient destroyers of thrips, they did not appear to have sufficient repellant powers to give promise of satisfactory control.

Predators on Thrips.

During the course of the work several natural enemies of Thrips imaginis were observed. Most active was a mite, Anystis baccarum, Lin. (Fig. 4). This is a pale red animal about 1.3 mm. in length, capable of very rapid movement. By means of large, pointed mandibles projecting from the front of the head a thrips is seized, usually by the abdomen, its body is punctured and the fluids sucked out. As soon as one victim is killed another is seized. In a few hours a number of the mites destroyed an average of as many as 30 thrips each. During the experiments they increased in numbers until as many as 90 could be shaken from each plant in the control plots, and 30 from the treated plants. They were also on Strawberry plants, but a limited search failed to reveal them on native vegetation. This mite belongs to a group which is predaceous on many small insects and acari. It would probably be too general a predator to be of much use in biological control. Its identification

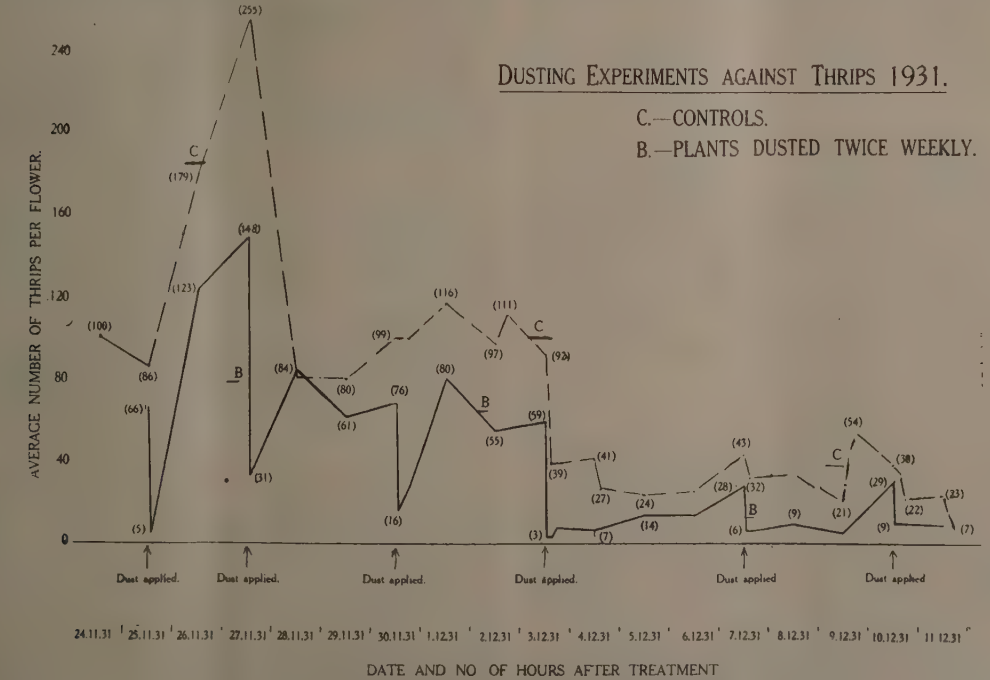


Fig. 3.—Rate of re-infestation after dusting twice a week.

was kindly supplied by Mr. H. Womersly (Western Australia).

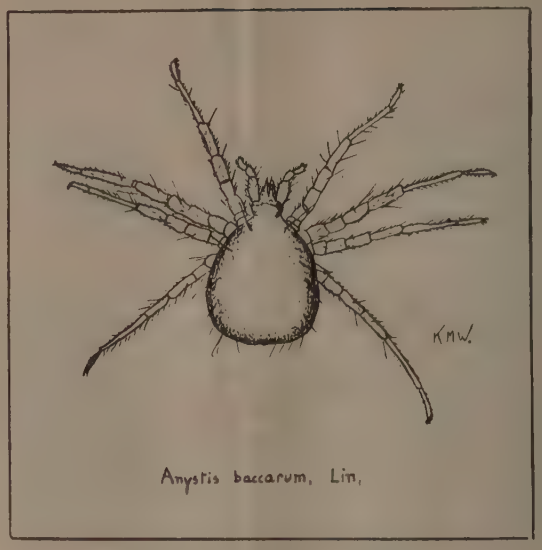
Other active predators on thrips were larvae of a lacewing (Chrysopa sp.) and of the common ladybird. A possible true parasite in the form of two very minute pupae was collected from a thrips infested blossom. Adults did not emerge, so identification was impossible. It is probable that a true thrips parasite exists here, and a little further intensive work would reveal it.

Conclusion.

A number of factors detracted from the conclusiveness of the results. Firstly, the decrease in the numbers of thrips after December 3 both reduced the period of observations and permitted a fairly high percentage of the blossoms to set; thus the difference between the set of fruit in the treated and untreated plots is small. Further, the number of thrips in the control plots was probably reduced both by the drifting of dust across them during the treatment of A and B plots and the number of predatory mites present.

Nevertheless, although the degree of infestation was considerably reduced, it appears that the rate of infestation was too high to give promise of satisfactory control by means of the type of dust used. The dust was very efficient in penetrating the blossoms and killing all thrips present, but, after a few hours, re-infesting insects were neither killed nor repelled. It is not known whether the presence of the dust acted as a mechanical hindrance to the insect. From the set of fruit on isolated patches of Strawberries, it would appear that the dust had some effect in reducing the activities of the insect in the flowers.

It is probable that thrips are not entirely responsible for the non-setting of fruit in the present season. Tests carried out this season by Mr. A. G. Strickland, Horticultural Research Officer, on the viability of Apple pollen showed that this factor varied considerably, and that, in general, the pollen was much less viable than would be expected in a normal season. Further, he tested the pollen in late flowers of the chief berry fruits with similar results. Thus, in the case of the black Loganberry, which set no fruit this season, less than 1 per cent. of the pollen would germinate. Smith's seedling, with the heaviest crop of fruit, showed the highest percentage germination of pollen (71 per cent.). All the flowers from which these results were obtained were collected at the same time, and were apparently perfect. Again, in some Apple districts in which thrips were in plague numbers, good crops were obtained.—"Journal of Agriculture," Victoria.



A natural enemy of thrips.

MANURES FOR ORCHARDS.

The 2:2:1 Mixture and Nitrophoska.

OWING to the increasing difficulty of obtaining supplies of the complete fertiliser Nitrophoska, it is understood that stocks in hand will by no means be sufficient for the demand this coming fruit manuring season, and growers who have been using it are advised that the 2 super., 2 sulphate of ammonia, 1 potash (2:2:1) mixture now offered by the fertiliser companies contains the three plant foods in practically the same ratio. The analysis of this mixture is as follows:—Nitrogen as ammonia, 8.24 per cent.; phosphate as super, 8.80 per cent.; potash as sulphate, 10 per cent.; and the price conforms to current unit values.

This ratio of the plant foods constitutes an excellent one for general fruit manuring, wherever, of course, some nitrogen is required. It supplies nitrogen well supported or balanced by the other two plant foods. For all ordinary purposes and for all classes of fruit trees, quantities varying from 4-6 lb. per tree should make an ideal complete manurial dressing prior to blossoming. For soils which show signs of loss of fertility, more nitrogen may be supplied in the form of sulphate of ammonia. For soils, however, which promote exceptionally vigorous growth, less quantities of the complete fertiliser or quantities of super. and sulphate or muriate of potash alone may be sufficient. In cases where leaf scorch in Apples is definitely diagnosed, nitrogen applications should cease temporarily and relatively heavy dressings—3-4 lb.—of sulphate or muriate of potash should be given.

For heavy soils which contain ample quantities of lime or which have been well supplied with gypsum and/or green manure, and especially where not much nitrogen is being applied, less potash than that recommended above in the 2:2:1: mixture only may be advisable. For this latter circumstance, the fertiliser companies are offering a mixture made up of 2 parts of super., 2 parts of sulphate of ammonia and only ½ a part of sulphate of potash—listed as a 4:4:1 mixture. This complete fertiliser is correspondingly a little cheaper than the 2:2:1, and should be very popular in the Murray and Murrumbidgee irrigation areas as a spring manure.

Where potash is considered unnecessary altogether, there are the 2 of super. and 1 of ammonia, or the 1 of super. and 1 of ammonia mixtures on offer.

A very complete range is therefore being presented to fruitgrowers this coming spring.

Fruit Trees and Roses.—Citrus and deciduous fruit trees also Roses, are offered by Messrs. Swane Bros., Enterprise Nursery, Ermington, N.S.W. The firm makes a special feature of attending to the requirements of the wholesale trade: they have made ample provision for the high demand on their fruit trees and Roses for the present season; the products are of notably good quality and are guaranteed by the firm. Inspection of the nursery and enquiries are cordially invited. Messrs. Swane Bros.' exhibit of fruit trees and Roses at the recent Royal Agricultural Show, Sydney, caused favorable comment.

South Australia.

MID-MURRAY NOTES.

Organising Citrus Growers—Sultana and Currant Drying —Soil Surveys—Irrigation Practice.

(By Our Correspondent.)

Renmark (16/5/32).—A large crop of Oranges is in sight this season, and many consignments of matured fruit have gone forward to both the Adelaide and Melbourne markets.

Efforts made by River growers to keep the Citrus Association going have been successful in obtaining signed control of more than the 75 per cent. required. Executive officers of the Citrus Association realised that it was necessary for this organisation to have at least 75 per cent. control of all citrus consignments for the coming season to ensure a more stable market than existed last year. In some settlements over 90 per cent. have signed up, and on the whole a good deal more than 80 per cent. will be handled by the above Association.

It is gratifying to know that the maturity standard has been adopted on the Melbourne market; this should effectively curtail the use of Ethylene gas in coloring immature fruit.

Sultanas and Currants.

Slowly the Sultanas and Currants are dribbling their way into the packing sheds, and there remains very little out at the present time. Harvesting costs have been high this year, because of the prolonged drying, necessitating a great deal of handling. On top of costs already incurred, growers who were obliged to have their fruit finished off in a dehydrator, an additional 35/- to 40/- per ton has to be added. However, the opening sales of new season's fruit have been satisfactory in the overseas market, and if these are maintained throughout the year, the extra cost of dehydration will not come into serious consideration.

Another special citrus irrigation commenced to-day. Although we have had scattered showers and cool weather for some time, it has not been of sufficient value to our trees to counteract the heavy drag of moisture occasioned by a big crop.

Soil Surveys.

Publication of the soil survey of Renmark irrigation areas have just been received. This is complimentary to the survey made of Block E and Chaffey lands carried out in 1929 by the Council for Scientific and Industrial Research. The survey of Renmark was carried out by Messrs. T. J. Marshall, B.Sc.Agr., and F. D. Hooper, Assistant Field Officer. The work of analysing soil samples is done at the Waite Institute at Glen Osmond, where all laboratory experiments are made. Following on these laboratory experiments, field tests will be made with a view to obtaining definite results whereby growers will have a better knowledge in the treatment of our various soil types.

Prior to the soil survey, the daily appearance of aeroplanes of the Royal Australian Air Force became quite a feature of the place, flying backward and forward in their work of taking aerial photos. This is the first time in Australia where a soil survey has been accompanied by aerial work. The photographs served many useful purposes in determining block boundaries, vigor and condition of crops planted, and estimating the corelation between natural vegetation and our irrigation soils.

Later on the Berri irrigation areas will have a soil survey made, and will be linked up with those already finished, subsequently bringing all our soil types into a systematic catalogue. Prof. Prescott, who is in charge of the soil department at the Waite Institute, has greatly simplified the method of transporting soil types, by gluing samples or strips of cardboard. In this way a correct profile can be obtained, and 100 samples can be carried in a briefbag. Hitherto the work of comparing soils in different parts of the world has been made difficult by the cumbersome method of a weighty bulk of soil, but by means of the cardboard soil samples, this is now an easy matter, and when adopted universally will enable our young soil scientists to broaden their knowledge for the benefit of our producing areas.

Other branches of producing industries have greatly benefited from scientific investigation, and so the primary producer will benefit when the soil scientist has delved into the many conflicting problems that crop up in the course of our year's operations with the soil.

Irrigation Practice.

Many growers on these areas failed to take the last special irrigation in progress during late March and early April, consequently a marked difference characterises the general appearance of those having received the irrigation and those who missed it. Where irrigation has been given, vines have retained their leaves, natural clovers cover the ground, and a general look of vigor denotes the benefit of this irrigation.

On an adjoining block, which received no irrigation, the land is as bare as fallow, and vines and trees have lost their leaves, while the whole aspect is one of winter during autumn.

To ensure a vine assimilating enough starch foods to produce a good crop the following year, leaves should be retained at least two months after the fruit has matured; in this respect, an early autumn irrigation is of the utmost value as a means to ensure a lengthy retention of leaves.—"Nemo."

Later (22/5/32).—Since the foregoing notes were written, we have had 1½ inches of rain, and the citrus irrigation which had commenced was only in progress one day when this downfall occurred, consequently the irrigation has been postponed indefinitely. All cover crops and citrus are looking well. Early-grown crops of Peas will be ready to plough under by the end of June, if they grow at the present rate. Warm weather followed the rain, and these crops are romping along.—"Nemo."

SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION.

The monthly meeting of the Executive Committee of the South Australian Fruit Marketing Association, Incorporated, was held at Adelaide on April 29. There were present:—Messrs. H. J. Bishop (Chairman), R. H. Charlick, F. B. James, J. S. Hammat, R. O. Knappstein, A. O. Peterson, G. Quinn, R. B. Pritchard, J. B. Randell, P. R. B. Scarcy, M. Vickers, H. N. Wicks, R. Willsmore, and Secretary. Apologies from Messrs. G. W. Selth and M. G. Basey.

Correspondence.—Letter from Messrs. G. Wills & Co. Ltd., advising that they had instructions from London not to accept Pears for shipment in the same compartment

as Apples in future, in any of the P. & O. Branch Service vessels.

Letter from Messrs. Elder, Smith & Co. Ltd., regarding complaints made by the Association in regard to the s.s. "Turakina," stating that every precaution would be taken to secure a satisfactory outturn of fruit carried by this vessel.

Letter from Messrs. Elder, Smith & Co. Ltd., in regard to the certificates which must accompany all fresh fruit shipped to Java ports.

Letter from Prime Minister, Canberra, acknowledging receipt of our letter asking for remission of sales tax on spraying materials.

Letter from Australian Apple and Pear Export Council, enclosing report and financial statement on the subject of advertising Australian Apples and Pears abroad.

Uniform Wrapping Paper.—A sub-committee consisting of shipper members was appointed to find a suitable design, and obtain quotations for a uniform Apple-wrapping paper to be used on all fruit exported. It was decided to notify the Australian Apple and Pear Export Council of this matter, and to suggest that the Council should consider the possibility of obtaining a uniform paper for use throughout the Commonwealth. It was considered such a paper with a suitable design and phraseology should be an excellent advertising medium overseas.

Research.—Mr. Quinn reported that the Research Committee had made arrangements to carry out experiments in regard to thrips in his orchard, and they were now installing the necessary instruments, and the work would be carried on continuously, and progress reports would be available for the Association from time to time. Information had also been received from the Department of Agriculture, New Zealand, regarding the methods adopted relating to the exporting of fruit, and also enclosing the Government regulations in regard to export, and the conditions of the Government guarantee.

Mr. Quinn's Report.—Mr. Quinn reported that the fruit during the present season had been particularly good, and free from disease, and generally speaking there was a decided improvement in the pack, the chief fault in some cases being that the bulge was nearly all on the top, and in consequence was excessive. This was probably brought about by the cases being packed on a flat surface.

The handling and stowing of the fruit at the ports of shipment had been excellent, and he considered that the results obtained had justified the request that had been made by the Association for additional inspectors at ports of shipment, and he also considered that the results that would be obtained overseas this season would show a great improvement over past seasons.

Over-ripe Fruit.—Mr. Quinn stated that the inspectors had refused to pass certain lines of large Cleos. and Jonathans, as it was considered that the fruit would not stand up to requirements when landed. The question of having a certain fixed date as the latest date on which certain classes of fruit could be shipped was discussed, but it was considered that such a regulation would be detrimental to the best interest of the industry in view of the big variations in the seasons from year to year.

Fruit Shipments
United Kingdom and the Continent

W. D. PEACOCK & CO.

London Fruit Exchange, Spitalfields, London, E.1.
AND HOBART, TASMANIA
Solicit Consignments
The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

GROWERS
If you want Long Experienced Service, Consign your lot to a REAL AUSTRALIAN PIONEER IN AGRICULTURE,
Descendants four Living Generations to-day,
A. E. Schuster
Store 16, Quay Street, City Markets, SYDNEY, N.S.W., AUSTRALIA.
Sound Judgment of Prices, Prompt Returns, and Reliable Advice.
Bank, Commercial Banking Co. of Sydney (Haymarket).
SHIPPING No. 270.
Stencils on Application.
'Phone MA. 4296.
P.O. BOX 253, HAYMARKET, SYDNEY, N.S.W.

RIDLEY & HOULDING
Covent Garden Market
LONDON
Specialists in Australian Fruit.
Solicit consignments of Apples, Pears, Etc.
Our record of over 30 years' standing in the handling of Australian fruit, with satisfactory results, is a recommendation for growers to ship their fruit to our house.
Representatives—
International Fruit & Mercantile Company Ltd., Melb., Vic., Australia; and A. J. Walshe & Co., Hobart, Tasmania.

Pear Freight.—It was resolved that a letter of thanks be sent to the Hon. C. A. S. Hawker, Minister for Markets, for his efforts on behalf of the Pear growers, which had enabled space to be obtained for Pears.

Shipping sub-committee reported that the overcharge in connection with two half cases of Pears strapped together had now been settled by the companies concerned, and the two half cases were now being carried at the same price as one ordinary Apple case.

Advertising Levy.—Shipping members reported that at the present time shippers were required to pay a levy of $\frac{1}{8}$ of a penny per case on all fruit on which "notice of intention to ship" was given, and up to date no rebate had been obtained where the fruit was not actually shipped.

Thrips Investigation.—It was resolved to place on the agenda for the May meeting the question of the steps to be taken in regard to raising funds towards providing the required amount of £1,200 per year to provide for special officers, and the necessary equipment, etc., for carrying out the investigation work in regard to thrips.

Research Sub-committee's Report.—Mr. H. N. Wicks reported that Dr. Davidson, of the Waite Institute, and Mr. J. W. Evans, of the Council of Scientific and Industrial

AUSTRALIAN FRUIT FOR LONDON.

The Australian fruit season is now in full swing. On April 5 the s.s. "Themistocles" discharged over 12,000 cases of Australian Apples at Tilbury Docks, and the s.s. "Surrey" and s.s. "Orontes" arrived in London on April 6 with 30,000 boxes of Apples, 21,000 packages of Pears and 1,300 boxes of Grapes. During the season London, on account of her huge consuming and distributing market, will receive very large consignments. Already advices have been received in respect of 53 ships which between them will bring over 3,700,000 packages of Australian and New Zealand fruit.

NEW SOUTH WALES.

Protecting Citrus from Frost.

Investigations have been made at the Griffith Citrus Research Station as to the best methods of protecting young citrus trees from frost.

In the opinion of the officer in charge (Mr. West), the best method is that of wrapping the stem with several thicknesses of paper, thus effectively protecting the most vital part of the tree—the stem. Newspaper has been found to be very satisfactory and cheap. Three or four double-page sheets may be necessary. Wrapping should extend right to the ground level, and as an additional precaution the soil can be mounded up for about six inches.

Citrus Production and Export.

At the recent Interstate Citrus Conference held at Sydney at the end of March, Mr. C. G. Savage, Director of Fruit Culture, N.S.W., stated that citrus production in Australia was now in excess of the local demand, and an export trade was essential. In 1936 there would normally be an export surplus of 932,000 bushels of Oranges and 78,000 bushels of Lemons. In a year of high production, the surplus would be considerably larger. The available export markets were those of New Zealand, Canada, the near East, and England.

Continuing, Mr. Savage quoted a report from the Australian Commissioner in Canada (Mr. L. R. MacGregor). It stated there appeared to be a demand for Australian Oranges, if high quality fruit could be placed on the markets during November and early December. The report further stated that on the early market Australia would have to compete with South African fruit: the Navels from that country eased on the English market in August, while the Valencias were marketed between August and October. During November to the middle of December there appeared to be a slack period between the South African and Spanish supplies.

Paper Mulch for Pineapples.

In November, 1930, plantings were made at the Grafton Experiment Farm, N.S.W., of two varieties of Pineapples, Ripley Queen and Improved Cayenne. These were grown in double rows, 2 ft. apart and 248 ft. long, each pair of rows being separated by a cultivation row 4 ft. 6 in. wide. The paper mulch is 3 ft. wide, and was used by placing the young Pineapples in holes six inches from each edge, thus making the Pineapple rows 2 ft. apart. The check rows were planted without the paper mulch. Seven months later it was reported that the plants grown with paper mulch were a darker green in color, more robust, and larger in leaf than the others. Five cultivations had to be given to the unmulched rows, while it had been necessary to hand-weed the mulched rows only once.

The crop at present showing on the mulched rows is very much greater than the others, this, in view of the reduction in labor necessary, being very interesting.

Although experiements have been satisfactory so far, future experiments will show whether the use of paper mulch is of economic value under varying Australian conditions.

Leeton.—The fruitgrowers' organisation which has carried on as the Leeton Branch of the Fruitgrowers' Federation of N.S.W. has been incorporated, and all future business will be carried on under the Leeton Producers' Rural Co-operative Society Ltd. The Society will depend principally upon the levy system for its main source of income. The levy imposed is strictly in relation to the tonnage handled.

This Co-operative Society is now in affiliation with the Fruitgrowers' Federation of N.S.W., the Australian Canning Fruitgrowers' Association, and the Victorian Central Citrus Association. The right to collect existing levies has now been legalised. All administrative expenses are to be kept as low as possible; the directors have offered their services free.

Gosford Packing House.—At the Gosford Co-operative Citrus Packing House, a modern plant has been installed, capable of treating the bulk of the fruit produced in the district. The fruit is dipped in a borax solution, after being soaked and washed. After passing over towel dryers the fruit is polished and given a light waxy coating. The treated fruit then passes on to sizing machines, ready for packing.

The floor space at the Gosford Packing House totals

Winter sprayings with the Shell Company's efficient Spraying Oils--REDSPRAY or SHELLICIDE D--will quickly destroy all insect eggs before they hatch in the warmth of Spring. Order your supplies NOW!
SHELL
SPRAYING
OILS
5025

about 8,000 sq. feet. Gangs of men employed by the packing house pick the fruit and deliver it for subsequent treatment and packing. The packing house is under good management and is well conducted. The district is to be congratulated on its progressive enterprise.

White Wax Scale.—The white wax scale is a troublesome pest in some of the citrus areas of N.S.W. The Department of Agriculture has appointed an entomologist to study control methods and to observe the effect of the soda treatment—applied at varying strengths. Growers have been using from 10 to 15 pounds of washing soda to 40 gallons of water, but the strength of the solution has been noted to be variable. The solution made with fresh crystals is not so strong as that made from crystals which have been exposed to the air some time. Exposure to the air increases the strength, because of the evaporation of the water contents of the crystals.

The N.S.W. Transport Commission has decided to open five fruit stalls at the New Wynyard underground railway station in Sydney.

A NEW ORANGE.

CONSIDERABLE INTEREST has been aroused in a new Australian Orange grown in the Orange grove of Mrs. Miers, of Irymple, Vic. There are several of these Orange trees in the grove, and the distinguishing feature is the high quality and the long-keeping character of the fruit produced.

A trial shipment of one case was made on March 24 last to England. This was sent to Mr. F. White, Victorian Trade Commissioner in London, and arrived in good condition.

Mr. White stated that the quality and appearance of the Oranges were excellent, and that there should be a ready sale for them on the English market. They should be sent to arrive there early in October, and continue throughout November and December. The agents estimated that fruit of similar quality to the samples received would bring 20/- per case containing approximately 1⅛ bushels.

Steps have now been taken to bud over several old trees in Mildura to this variety.

Herbert Wilson
Pty. Ltd.
Wholesale Fruit Merchants and Commission Agents
Nos. 1 and 10 Wholesale Fruit Market Melbourne.
Accredited Agents for Victorian Central Citrus Association and Affiliated Association.
Bankers: *National Bank of Australasia.* (Western Branch) Melbourne.
City Telephone F6444.
Private 'Phone M3055.

Tasmanian Apples
Orders for Apples carefully handled and undertaken for all Overseas & Interstate Markets.
E. R. COTTIER Pty. Ltd.
Temple Place, Macquarie Street
HOBART - - TASMANIA
Tel. add. "ERCOT," Hobart.
Consignment shipments solicited on behalf of leading Fruit Brokers and Salesmen throughout England and Continent.

T. STOTT & SONS
Fruit Merchants
Established 1882
A Trial Consignment solicited from Growers in all States.
Prompt Settlement.
26 New Wholesale Fruit Market, Melbourne

MURRUMBIDGEE IRRIGATION AREAS.

Citrus Production.

The 1932 citrus crops on the Murrumbidgee irrigation areas appear generally satisfactory. A recent estimate gives the following probable output from packing houses: Griffith, 250,000 cases; Leeton, 150,000; Yenda, 40,000.

Late Valencias are heavier than last year, Navels slightly less.

The Griffith Producers' Co-op. Co. Ltd. is in the process of installing a new plant for the treatment, cool storage and packing of Lemons.

Fumigation finished at the end of April. A co-operative company with three teams of men has been using 30 tents, about 40,000 trees having been treated for red scale. For the sowing of cover crops, Tick Beans have been largely used.

ROSEA NURSERIES, ERMINGTON, N.S.W.

Mr. Thos. Adamson, of the Rosea Nurseries, Ermington, is offering high-class young citrus and other fruit trees for planting this season. The nursery is situated adjacent to the Ryde railway station, and every facility is offered for personal inspection. A tract of virgin land was acquired many years ago, the soil and climatic conditions being favorable for the production of fruit trees and Roses for sale. A satisfactory business has been developed, with clients throughout Australia and overseas.

Some of the lines include citrus, Apples (export and local), Plums, Figs, Peaches (canning and dessert), Pears, Prunes, Almonds, Apricots, also Passion Fruit and Roses. The Skinner system of irrigation has been installed, and the nursery is well laid out. Special care is taken in packing. All enquiries are promptly dealt with.

Squire: "Well, Jones, and how is your son getting on, the one who was a ventriloquist?"

Jones: "'E's doin' nice now, sir; 'e are in a bird shop sellin' parrots."

"Your husband is sulking again. What's wrong this time?"

"Oh, it's just because I used his silly old tennis racket to strain the potatoes."

All's well in this Orchard

"Aero" BRAND HIGHEST QUALITY

The Codlin Moth hasn't a chance to damage the Orchard sprayed with

BICKFORD'S "AERO" BRAND

ARSENATE OF LEAD

"Aero" Brand Arsenate of Lead Powder is the lightest in texture of any Arsenate of Lead on the market, and is therefore ideal for dusting purposes. For wet spraying it readily and evenly mixes in the spray tank, and is so impalpably fine that it never chokes the spray nozzle.

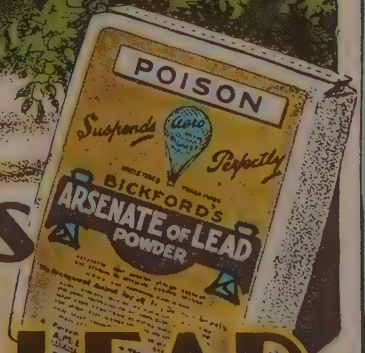
The high arsenical content, and consequent high killing power, with absolute immunity from burning or other injury to the foliage, places "Aero" Brand Arsenate of Lead in the very front rank as the most effective spray against Codlin Moth and other leaf-eating apple and pear pests.

Ask the leading Orchardists what they think of "Aero" Brand.

Manufactured in the Laboratories of

A. M. BICKFORD & SONS, LIMITED,

Wholesale Manufacturing Chemists and Druggists,
ADELAIDE, SOUTH AUSTRALIA.



BICKFORD'S

"Aero" BRAND

ARSENATE OF LEAD

By every Test, Bickford's "AERO" Brand is Best

TASMANIA (Northern Districts)—
GARDNER & McKENZIE PTY. LTD.
64 Cameron Street, Launceston.

TASMANIA (Southern Districts)—
PORT HUON FRUITGROWERS CO-OP. ASSOCIATION LTD.
Davey Street, Hobart.

WESTERN AUSTRALIA—
FELTON, GRIMWADE & BICKFORD LTD.
297 Murray Street, Perth.

NEW SOUTH WALES—
BUZACOTT & CO. LTD.
7-11 Market Street, Sydney.

QUEENSLAND—
BUZACOTT (QUEENSLAND) LTD.
413 Adelaide Street, Brisbane.

VICTORIA—
RAMSAY & TREGANOWAN LTD.
469-477 Latrobe Street, Melbourne.

The Home of Bickford's "Aero" brand Arsenate of Lead

A view of our new Arsenate of Lead works at West Croydon. The building is constructed on the most modern lines and is replete with every convenience for the comfort and welfare of the staff

WE have manufactured and sold Arsenate of Lead now for well over twenty years, and, following upon a wonderful improvement in our product some ten or twelve years ago, we placed the product on the market under the now well-known name of "Aero brand" Arsenate of Lead. We were the first firm in Australia to manufacture Arsenate of Lead Powder, and the surpassing fineness and lightness of texture of our product have never been approached by any other make.

We employ a special process which yields a product of superlative quality, and the new plant which we erected four years ago enables us to manufacture to an even higher standard than before, since new methods of control and adjustments

An interior view of our new Arsenate of Lead plant, showing the huge vats. The one in the foreground contains the slurry as fed to the filter press pumps

Another view of our new Arsenate of Lead plant, showing the filter press where the Arsenate is separated from the water.

have been introduced that were not previously available. Analytical control is exercised over every batch of "Aero brand" Arsenate of Lead.

The most exacting tests are employed to ensure uniform fineness and lightness, a high percentage of Arsenic and a very low percentage of soluble Arsenic. "Aero brand" thus sets a new standard in its low soluble arsenic content.

"Aero brand" Arsenate of Lead is fully guaranteed and in whatever proportion used will give equal or superior control to that of any other brand used in similar strength.

SOLE MANUFACTURERS:

A. M. BICKFORD & SONS, LIMITED

WHOLESALE MANUFACTURING CHEMISTS AND DRUGGISTS
42. 44. 46. CURRIE STREET. ADELAIDE

LABORATORIES AND WORKS:
99. 100. WAYMOUTH STREET. ADELAIDE. AND PORT ROAD WEST CROYDON

NEW SOUTH WALES.

Orange.

(From Our Correspondent.)

THE GRAPEGROWERS who were fortunate enough to miss the hail, had the best run this year than for some years past, the weather being favorable and the prices reasonably good. Black Muscats are the principal variety grown through the cool summers of late; White Muscats have not been a success generally.

The vines trained on three wires again exemplified their superiority, over those trained on two wires, being more open and exposed. They colored better and stood up to the rain better, as they dried more quickly, those on two wires being too shaded and protected.

We had a spell of dry weather, which caught some growers napping. They did not work the ground soon enough after a heavy fall of rain at the beginning of December; consequently the ground set, and there was a great loss of moisture, which affected the foliage, and a lot of Grapes did not color up properly.

Pollination was bad in Apples through thrips and cold weather, although in many orchards Jonathans and McIntosh Reds set a good crop; through the lack of seeds in the fruit, they did not color as well as usual. Late varieties were very light. It is most unusual for Granny Smiths to be a washout, but with the exception of an occasional orchard they let us down this year. W.B.C. Pears had a medium crop generally, while B. Bosc were fair, other varieties very light.

There is an indication for good crops right through for the coming season. Plums were a total failure this season, and are showing particularly heavy for next season. Unless they are pruned drastically to reduce the crop and increase the size, Plums will be a drug on the market.

Blacktown Show.—A feature of the recent Blacktown Show was an excellent display of local produce.

Judges made the following awards in the fruit section:—Dessert Apples: S. E. Allen, sen. Granny Smith (cooking): W. Hart. Cooking (a.o.v.): S. E. Allen, sen. Dessert Pears: J. Hicks. Cooking Pears: S. E. Allen, sen. Quinces: W. Hart. Navel Oranges: H. E. Gilbert. Valencias: C. Roughley. A.o.v.: C. Roughley. Manderins, Emperor: H. E. Gilbert. Do., a.o.v.: C. Roughley. Lemons, Lisbon: C. Roughley. Do., a.o.v.: S. E. Allen, sen. Pomegranates: Roy Meurant. Persimmons: H. E. Gilbert. Peaches: Mrs. Lackey. Passionfruit: C. H. Saunders. Grapes: G. W. Brown. Summer fruit: S. E. Allen. Citrus fruit: C. Roughley. Water melon, green: J. Nutter. Do., light: G. H. Boswell. Do., a.o.v.: G. H. Boswell. Do., six varieties: G. H. Boswell. Rock melon, green: G. H. Boswell. Do., yellow: J. Nutter. Do., six varieties: G. H. Boswell.

Ernest Harry Broster, orchardist, was fined £20 at Parramatta (N.S.W.) Court on February 17, for having failed to destroy diseased fruit. The magistrate said he regarded it as a very serious matter, because other orchards in the vicinity could become infected with the diseases as a result of the neglect.

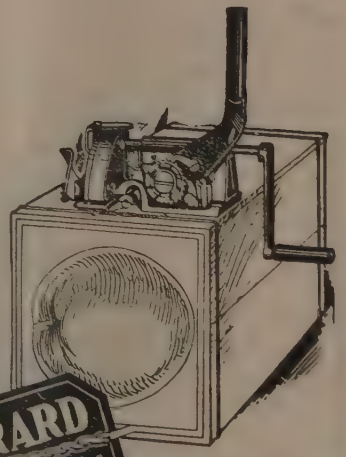
Catalogues Received.

G. McKee, Ermington, N.S.W.—Catalogue giving description and prices of specially selected fruit trees, etc. Some helpful hints are given, also a table showing the number of plants required for an acre of land.

Pride

YES, Sir, demonstrate to every man who handles your pack of fruit that you are proud of the product of your orchard. IT PAYS! Tom, Dick and Harry, carter, railway employee, wharf labourer, appraiser, selling agent, BUYER, all of them respond to good packing pride.

GERRARD WIRE-SEAL STRAPPING is the seal of good packing methods, and guarantees safe transport to the ultimate market, at home or abroad.



Gerrard Wire Tying Machines Co PTY. LTD.

119-125 HAWKE STREET, WEST MELBOURNE.

GERRARD The Tie That Binds

London, Melbourne, Sydney Brisbane, Adelaide, Perth, Launceston, Hobart Wellington

BANANA GROWING IN N.S.W.

During the month of April, no less than 20,343 cases of Bananas were sent from the Tweed district to southern markets, as well as 7,000 cases to Brisbane. Allowing for an average of 17/- per case this represents a return of £22,500.

TAYLOR'S ANNIVERSARY RED.

A New Peach.

A new Peach, "Taylor's Anniversary Red," is obtainable from Messrs. Swane Bros., Enterprise Nurseries, Ermington, N.S.W. This Peach was raised by Mr. Taylor, of Concord, N.S.W. It is a cross between Brigg's Red May and Shanghai Seedling. Fruit is of excellent quality, a perfect freestone; color on outside is not what may be termed highly colored, still it carries more color than the Shanghai Seedling. Inside of fruit is almost a brilliant red color, whilst the flavor is perhaps superior to any other freestone Peach. Seed is exceptionally small.

Messrs. Swane Bros. state that having seen this Peach fruiting for four years, they can highly recommend it being a good cropper, the fruit ripening about Anniversary Day.

AN OVERRIPE REPUTATION.

Customer: "Three of those Apples you sent me were rotten—I am bringing them back."

Salesman: "That's all right, madam—you needn't bring them back, your word is just as good as the Apples."

CONTROL OF WOOLLY APHIS.

In nearly all Apple districts of N.S.W. the woolly aphis parasite, Aphelinus mali, keeps the aphids under control, with the result that the pest is now very little in evidence in the autumn. It is, however, sometimes found in an occasional orchard, and where this is the case and the trees are badly infested with this pest a spraying with tobacco wash or nicotine sulphate should be given at the end of this month to clean up the trees.

When spraying for woolly aphis use a high pressure to break up the clusters of aphids.

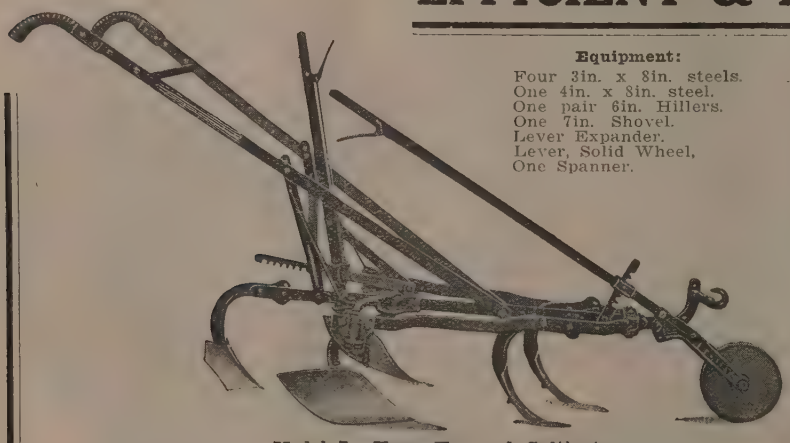
PYSECT CONCENTRATE.

For the control of plant pests Pysect Concentrate has been found very serviceable. Pysect is a highly concentrated Pyrethrum extract, mixes readily with water: is harmless to plants and warm-blooded animals; ½-pint tin (10 fluid ounces) will make up to 160 gallons effective spray by mixing with water only. The original Pyrethrum Insecticide secured the award of merit at the Horticultural Society, 1929. J. W. Munro, M.A., D.S.C., Assistant Professor of Entomology and Director of the Biological Field Station, Imperial College of Science and Technology, London, in his book, "Insects and Industry," writes favorably of the toxic principles of Pyrethrum extract.

This preparation kills all pests which fruitgrowers and gardeners now attack with nicotine, quassia, etc., also many for which arsenic compounds are used. Mr. J. A. Gore, 4th Floor, Hardy's Chambers, Hunter-street, Sydney, and Box 3043, G.P.O., Sydney, is the sole agent for Pysect in Australasia.

"HARVEY" CULTIVATORS

EFFICIENT & ECONOMICAL.



Model 7.—Horse-Hoe and Cultivator.

Equipment:
Four 3in. x 8in. steels.
One 4in. x 8in. steel.
One pair 6in. Hillers.
One 7in. Shovel.
Lever Expander.
Lever, Solid Wheel,
One Spanner.

MODEL No. 7 HORSE HOE AND CULTIVATOR:

Designed to give a lifetime of service. Neat, compact, and easily handled, steadiest running Horse-hoe ever made. The stiff steel frame is extra long and higher than usual; closes to 10 inches and opens to 25 inches. Hard Steel standards, high rounded in throat to reduce clogging. High-grade especially hardened steel teeth.

Write for Illustrated Folder.

D. HARVEY, ORCHARD IMPLEMENT MANUFACTURER. **Box Hill, Victoria.**

QUEENSLAND.

Banana Agreement—"Bagging" Bananas to Prevent Thrips Damage—Successful Treatment for Black Spot and Oidium

(By Our Correspondent.)

Gympie (19/5/32).—The Secretary of the Gympie Fruitgrowers' Association (Mr. M. Buchanan) has received a communication from the Manager of the Committee of Direction (Mr. W. Ranger), stating that after prolonged negotiations, representatives of the Banana trade in Melbourne were willing to sign an agreement with the C.O.D. This agreement is to the effect that the agents will act as merchants instead of as agents and nominate a definite price for the goods within a reasonable time after arrival. The spirit of the agreement will be to engender co-operation, and it should be materially helpful in the interests of the growers. The representatives of the C.O.D. are being given access to the books of the merchants.

As a result of the conference of the Sugar Banana growers with the C.O.D., improvements are expected.

The newly-installed ripening equipment is proving satisfactory. It is understood that improved prices are being received as a result.

Banana By-product.—A palatable "sweet" has been developed by Mr. S. Ukran; this can be kept indefinitely, and is adaptable for all purposes for which Raisins are used.

Mr. H. Simonds, Plant Pathologist of the Department of Agriculture, has returned from a visit to England, the Continent and the Near East. He was impressed with the attention paid to science in agriculture in Java.

Tobacco is being successfully cultivated here. Mr. W. Pritchard, of Woondum, has a nice area for picking, and a drying kiln is being erected. Owing to the humidity of the night atmosphere, it has been recommended that bark or shingles be used for roofing, as galvanised iron "weeps" too freely and may possibly stain the leaf or produce mould.

On May 10 your correspondent inspected several bunches of Bananas that had been "bagged" at budding. Several bunches contained over 19 dozen uniformly developed fruit, the whole of which were marketable. The only evidences of thrips were very slight marks where the fruit touched each other near the stalk. In comparison, a bunch that had been "bagged" two months after budding was much smaller, and was badly infested with thrips, though practically all the fruit will be marketable. The grower has adopted a method of marking the bags with whitewash and oil to show the date of bagging as follows:—Bags placed on the fruit the third week in May are marked "May III., in large letters, so that they can be seen at a distance; this would allow of the grower finding the fruit which he thought would be ready for cutting. During the thrips season last year, at least 50 per cent. of the fruit was unfit for marketing, whilst this year practically 95 per cent. of the fruit on the bunch being packable, thus showing that bagging avoids losses and wastage.

Applications to the Federal Government for the removal of the sales tax on the purchase of bags by Banana growers for the prevention of rust have been unsuccessful.

Successful Treatment for Black Spot and Oidium of Grapes.—The following is one of the most certain, least costly and most easily applied remedies (both for insect and fungus pests). It is a thorough chemical mixture, which acts by smothering and scorching the pests. All the substances act as manures and do not injure the plant growth. It is also a splendid treatment for woolly aphis of Apples, etc. A paint is made as follows:—Take 5 lb. of freshly burnt limestone and slack it by adding water. While the powder is still hot, stir it into 3 gallons of water, thoroughly incorporate them, then add as much clay as will make a thick paint. When the clay is dried before it is required for use and broken up finely, it mixes more freely than wet clay. Beat up the paint until it is quite tough, and then add 3 lb. of flowers of sulphur. The paint is then ready for use. Apply it with an old stiff paint brush or a stringy-bark brush may be made to do. Put the paint on as thick as an old penny, **completely covering** all of the plant (branches and stem), so that it comes in contact with all parts and so scorch the insects and fungi it is brought in contact with; it also shuts the air from them. When it dries and the buds begin to come it peels off and leaves the plant quite clean. This also is splendid for painting the trunks and branches of all fruit trees, being more efficient than ordinary whitewash. I have used this myself with excellent results, and can recommend it. If procurable, 2 oz. crude tar oil can be advantageously added to it.

Ask Bill Ranger.

Willie: Dad, what is the yellow peril?

Dad: The Yellow Peril, my boy, means a Banana skin left on the pavement.

Simson: "Any luck at the races yesterday?"

Samson: "Rather, I found a shilling after the last race, so I didn't have to walk home."

Do not run any Financial Risk with your Fruit but Consign it to

HEDLEY GEEVES LIMITED

Telegraphic Address: "Apples, Brisbane." (Hedley Geeves, Managing Director) Registered Shipping No. 6.

FRUIT EXCHANGE——————BRISBANE

SELECTED AGENTS FOR:

Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd. Harcourt Fruit Supply Co. Ltd. Victorian Central Citrus Assn. Ltd.

Tasmania: State Fruit Advisory Board.

New South Wales: N.S.W. Central Citrus Assn. Ltd. Batlow Packing House Co-op. Soc. Ltd.

GEMBROOK FRUIT TREE NURSERIES.

THE name of Nobelius has been associated with the growing of fruit trees for nearly fifty years, and fruit trees from this nursery, which is situated at Emerald, Victoria, have been sent to every part of Australia and New Zealand, also to overseas countries.

The soil at the Gembrook Nurseries is particularly suited for producing fibrous-rooted trees which can be moved to other places with safety. Having large areas of ground, it is also possible for the company to grow their new stocks in new soil.

The nursery manager is Mr. Cliff. Nobelius, who, through his long association with orchardists, is familiar with their requirements, and the company endeavors to confine its activities to growing those varieties of fruit trees which will do well in the orchard, produce good fruit, and be readily saleable on the local, interstate and overseas markets.

The largest stock at the present time is in yearling apples. Granny Smith, because of its continued popularity, is grown in large quantities. Other varieties also grown include Jonathan, King David, Rome Beauty, Cleos., London Pippin, Democrat (which has sold very well in the last few years), Dunns (a variety which W.A. growers have planted largely in later years).

In two-year-old Apples the nursery has an excellent stock of well-grown trees in practically all the same varieties as mentioned in the previous paragraph. Notable additions are Glengyle, Yates, and Stayman's Winesap (a variety which is not grown much in Australia, but is one of the most popular in America because of its fine appearance and flavor).

Peaches in large quantities are grown, and the stock is in excellent condition. Some of the varieties grown in dessert sorts include Zerbes (a fine early Peach, good cropper and highly colored fruit; is a freestone Peach, and fruits early mid-season, when Peaches are scarce), Anzac, Pumps, Smith's Seedling, Catherine Ann (a variety which carries well), J. H. Hale, Wiggins, Hale's Early, Mayflower (a very early variety), Elberta, and others. Clingstone Peaches, which include Pullars, Levis, Phillips, Sims, Golden Queen, and Thieles, are in great demand this season, and these varieties are now only available in dormant bud. These buds are selected and worked on good strong stocks, and should give every satisfaction; large numbers are being planted in this way. Healesville Cling is the only variety still available in trees. J. H. Hale is a variety of Peach which Mr. Nobelius speaks very highly of because of its suitability for shipping, owing to its firmness and the fact that it is an unusually long keeper. It is also a good canning Peach.

In Pears, Packham's Triumph, a good all-round Pear, and Bartlett are grown very largely. Other varieties include Beurre Bosc, Winter Cole, Josephine, and others.

Plums are grown as yearlings, also in two-year-old trees. All the leading varieties are grown, including Coes, Grand Duke, Diamond, President, Burbank, Santa Rosa, Satsuma, Wickson, Wilson, Wright's Early, and Damsons.

Prunes include D'Agen, Robe d'Sargeant, Splendour, Sugar, etc.

A fine stock of Almonds is carried at this nursery, the varieties being Brande's Jordan (which is noted for its strong growth and very tender shell), Ne Plus Ultra, White Nonpareil, Burbank, etc.

In Nectarines the chief variety is Goldmine, which produces large fruit and is a perfect freestone. Its beautiful creamy colored flesh, tenderness, delicious flavor and bright bronzy red color, added to the fact that it ripens early in February, places it in the forefront of varieties available. Other good varieties include Cardinal, Early Rivers and Newboy.

Japanese Persimmons grow well at Emerald, and a well-rooted type of tree is produced.

Other fruit trees grown at this nursery include Oranges, Lemons, Mandarins, Grapefruit, Limes, Grape vines, Passion Fruit, and berry fruits.

The company make a speciality of packing and shipping to all parts of the world. Mr. Nobelius is pleased at all times to hear from orchardists or intending planters and advise them in regard to planting requirements.

Pomonal.—Over 30,000 cases of Apples went forward for export this season: this is about half the normal export. A large proportion of the fruit was purchased by exporting firms.

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Effectively Control Red Scale

No other single treatment equals one first-class fumigation. Although Calcid Briquettes may cost a copper or two more per tree than other methods, it is the RESULT COST, and not the first-cost, which makes Calcid Briquettes the cheapest method of scale control. The largest growers and the largest packing shed fumigation plants use Calcid Briquettes exclusively.

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PRUNING AND THRIPS DAMAGE.

Observations Regarding Incidence in Pome Fruit.

INTERESTING OBSERVATIONS in regard to the incidence of thrips damage to Apples and Pears last season are made by the N.S.W. Departmental Fruit Instructor, located in the Goulburn district. Occasionally, it is stated, in districts where the crop generally had been a complete failure, an orchard or portions of an orchard were found carrying a good crop of fruit. Particulaly was this the case with the Pear varieties Williams and Packham's Triumph. It was observed that Williams trees that carried a full crop of fruit had also made from 12 to 18 inches of new leader growth, the result of fairly heavy winter pruning. As the trees were scattered indiscriminately throughout the orchard, such factors as position, drainage, and quality of soil could not have been responsible for the growth and fruit. With Packham's Triumph spur pruning appeared to have had more influence in determining the size of the crop, and several instances were noted where trees correctly spur-pruned produced full crops, while untreated trees in the same row failed to do so.

It would appear that trees of the varieties Williams and Packham's Triumph—and possibly other varieties and kinds of fruit—which are in a healthy condition, and are not overburdened with blossom, the blossom being accordingly strong and vigorous, have a far better chance of producing a full crop of fruit in a year when thrips are numerous than trees which are weak from any cause, and that sound orchard treatment—cultivation, pruning, hand thinning, spraying, etc., will help to secure more regular crops of fruit in cases where the blossom is not absolutely destroyed by the thrips.

PRUNING OF STONE FRUITS.

Advantages of An Early Start.

BY STARTING PRUNING EARLY on stone fruit trees that have become dormant a longer season is obtained, and often economy of labor can be effected in this way, writes the N.S.W. Department of Agriculture. Pruning commenced in May in some districts, when the weather is dry: this is commended, as much unfavorable weather occurs in the late winter months, with the result that the work is often greatly hampered. It is sometimes claimed that trees pruned early are more likely to break into bloom if a spell of abnormally warm weather follows. The results of departmental experiments, however, do not definitely point to this being the case.

The chief aim when pruning young trees is to develop a strong, well-balanced framework. Excessive unchecked growth has a tendency to weaken the limbs, and if trees are allowed to commence cropping whilst the limbs are too fragile to bear the weight of fruit results may be disastrous.

WESTERN AUSTRALIA.

Manjimup.—A first-class display was made at the autumn show of the Manjimup Agricultural and Horticultural Society on April 13. The schedule included sections for fresh fruit, farm produce, tobacco, preserves, and dairy produce. The prize-winners in the fresh fruit sections were as follows:—M. Kelly, J. H. Little, T. Hinde, G. S. Giblett, Mr. Trebilco, W. B. Shaw, G. Fontanini, P. Barnes, and W. Mottram.

2:2:1

The new Orchard Fertiliser (known as 2:2:1 mixture), which we are recommending to fruitgrowers, contains:—

2 parts of superphosphate,

2 parts sulphate of ammonia,

1 part potash,

and conform to the analysis of Nitrophoska, which became so popular, but which is now rather difficult to obtain.

Orchardists who used Nitrophoska can use the 2:2:1 mixture, with every confidence, and those who have not experienced the advantages of Nitrophoska, but who are on the lookout for a well-balanced general orchard fertiliser, will do well to try the 2:2:1 mixture this coming fertiliser season.

Ask your FERTILISER AGENT to quote you for 2:2:1 and the new mixtures of SUPER and AMMONIA.

Write us for our recommendations.

NITROGEN FERTILISERS PROPRIETARY LIMITED
360 Collins Street, Melbourne, C.1.

NEW PEACH PATENTED.

Plant Patent No. 7 was on February 16, 1932, issued for a new variety of Peach to James E. Markham, of Xenia, Ohio, who has assigned his rights to Stark Bros. Nurseries and Orchards Co., Louisiana, Mo. The application was filed September 6, 1930, by Robb & Robb, attorneys, and patent bears the serial number 480,220.

The new variety—a "'free stone"—is described by the "inventor" as the patent terms him, as the result of a cross of the J. H. Hale Peach and an unknown yellow variety of strong and vigorous character. The tree is said to be "extraordinarily vigorous" and very hardy, bearing very young and producing a heavy crop of uniformly large Peaches. This large size is given as the distinctive feature of this variety; the patent states "there being no small Peaches appearing on the trees." In color the fruit is "deep lemon yellow to orange practically overspread with mottling and shading of red from the orange crimson . . . . through various shades to a very deep carmine appearing almost black . . . . ." The flesh is rich golden yellow and firm, fine grained, slightly fibrous, melting when full ripe, very juicy. The flavor is rich sub-acid, the aroma "distinct, rich and pleasing," and the quality excellent.

As to season, "This Peach follows the J. H. Hale and Elberta ripening season—ripening about one to two weeks after when grown under comparable conditions."

It is interesting to note that the patent includes this statement: "It is understood that the foregoing characters are typical but subject perhaps to slight variation, which may arise by reason of change of environment."—"Florists' Exchange," U.S.A.

INTRODUCTION OF PLANTS FROM QUEENSLAND.

Regulations Regarding Inspection.

Several cases have recently come under the notice of the N.S.W. Department of Agriculture where importers of fruit, vegetables, etc., by road from Queensland have failed to arrange for the produce to be inspected at the border, with the result that they have been prosecuted, and substantial fines inflicted. The attention of importers is directed to the fact that under the provisions of the Plant Diseases Act the introduction of fruit and plants (including vegetables) into this State from Queensland is prohibited, unless notice of the arrival of such produce is given to the Department's Inspector within 24 hours after its arrival at the place of entry, and a permit for its importation has been obtained from him. Failure to comply with the law in this respect renders the offenders liable to a heavy penalty.

The places of entry for fruit, vegetables, etc., by road from Queensland are Tweed Heads and Wallangarra, and the inspectors at those centres are Mr. A. C. Green, Boyd's Bay Ferry, Tweed Heads, and Mr. S. C. Todd, Railway Station, Wallangarra.

A city girl who was holidaying in the country became rather friendly with a young farmer. One evening as they were strolling in the paddocks, they happened across a cow and a calf rubbing noses in the accepted bovine fashion.

"Ah," said the young farmer, "that sight makes me want to do the same."

"Well, go ahead," said the girl, encouragingly, "it's your cow."

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for 1932 Planting.
ORDER Goodman's Quality Trees Now! Ample stocks available—every tree clean, healthy, free from insect pests.
All varieties, including:—
PEARS.—Leading Export kinds, viz., Bartlett, Bosc, Comice, Packham's, Josephine, Cole, Nelis and others.
APRICOTS, on Apricot and Plum stock, viz., Blenheim, Moorpark, Newcastle, Oullins, Royal, Tilton, Trevatt, etc.
APPLES.—All Best Commercial Varieties for every purpose.
Almonds, Cherries, Nectarines, Peaches, Plums —English and Japanese; Walnuts, Damsons, Prunes, Quinces, Small Fruits, all kinds, etc., etc.
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What Trees Shall We Plant in 1932?

Some Helpful Hints.

NORMAL ORCHARD DEVELOPMENT ON good land intelligently made as to the suitability of the varieties planted, has always proved a good investment, and will invariably survive on a paying basis any normal period of depression.

So writes Mr. Geo. W. Peart, proprietor of C. J. Goodman's Nurseries, Bairnsdale, Vic.

Continuing, Mr. Peart states:—

In planting an orchard, avoid the novelties and plant only the proven kinds. The money in fruitgrowing has rarely, if ever, been made from novelties.

Nuts.—With present tariff protection, all varieties of Nuts—Almonds and Walnuts included—can be safely planted in quantities. Australia imports thousands of bags yearly of Almonds, Walnuts, etc. This should not be, and now, more than ever, is the time to plant Almonds and Walnuts on a commercial basis in good land and proven districts. The introduction this year of Walnuts like Wilson's Wonder coming into bearing in first year from budding is an immense step forward in Walnut culture.

Apples.—There are many sections where Apples can be produced in quantity and of exceptional quality. In such areas Apple planting in the correct varieties looks an extremely good proposition. Plant now, and be ready for the not far distant day when Apple orchards will assuredly rank much higher in £ s. d. than at present. Yellow Apples, such as Cleopatra, Dunns, and Granny Smith, and such reds as Delicious and Tasma, are proved commercial kinds now in demand. Stewarts and Gravensteins follow closely.

Apricots.—For the time being, only the extremely early dessert varieties and standard canning sorts are reasonably safe. Tilton, Trevatt and Blenheim have come into greater favor than the Moorpark with canners. PLANT THEM!

Cherries.—This fruit is very partial indeed to localities. Given the right conditions in climate, soil and drainage, there is no other deciduous fruit with prospects to equal those of the Cherry.

Nectarines.—The Nectarine can be grown in any safe Apricot or Peach district. Dried, they are superior in flavor and quality to the dried Peach. For fresh consumption the demand is limited, and four varieties at most are plenty to make a good orchard succession.

Peaches, Dessert.—White-fleshed varieties having a good red skin keep the market to themselves, and intending planters need to carefully investigate their marketing conditions before making heavy dessert Peach plantings. It would seem preferable to try for the very early and very late markets—other things being equal.

Peaches, Clingstone.—For some time past plantings have been very limited. Many old orchards in original canning Peach areas are falling back in production, and a spurt in planting can reasonably be expected at any time. Instead of seven or eight kinds as in the past, planters will probably "dig in" on two or three at most.

Tasma (syn. Democrat) Apple, showing method of pruning, fruiting, and general characteristics.
(Illustration by courtesy Tasmanian "Journal of Agriculture.")

Fruitgrowers!

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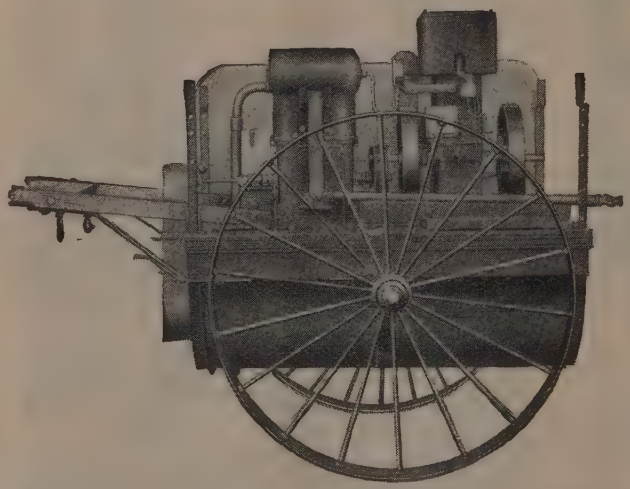

1. The "Buzacott" Figure "469" is tangible evidence of our belief in manufactured goodness.
2. It is the very finest spray cart we know how to build—much better than we could have built, say, five years ago.
3. It is built thus finely in the simple conviction that most fruitgrowers want that kind of Spray Cart.
4. The "Buzacott" Figure "469" runs smoothly, surely, and maintains a high pressure comfortably at full working capacity—it will last uncommonly long.
5. Among fruitgrowers the "Buzacott" Figure "469," in comparison with less modern outfits, has aroused an expectancy of service easily **double.**
6. It's reputation and employment are steadily and swiftly growing as word of its advantages and unique design become more widely spread.
7. There is every indication the Figure "469" will in the near future be the standard equipment on a pronounced majority of the orchards throughout Australia.

SETTLE THAT SPRAY CART QUESTION NOW.

FILL IN YOUR NAME AND ADDRESS. WE WILL BE PLEASED TO SEND YOU FULL PARTICULARS.

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South Melbourne. Phone—M 2251

Agents for Tasmania:
Tasmanian Orchardists' Producers' Co-op. Co. Ltd., Hobart.
R. N. Jackson, Collins Street, Hobart, Box 383B.

If the estimate of 28,000 Peach trees having been killed in the Goulburn Valley in spring of 1931 owing to excessive wet be correct, planting will be strong for 2 or 3 years, as nurserymen allowed supplies of trees to become very low, owing to lack of demand for several seasons.

Pears.—Export possibilities with this fruit are tremendous. Bartlett is our chief canning Pear—in fact, there is now no other seriously wanted. It cool stores for two or three months, therefore success as an export Pear in the near future should be certain. Bartlett, as well as other "already proved" export and cool store Pears, merit heavy plantings. Export Pears worthy of more notice are Bosc, Comice, Packham's Triumph, Josephine, and Winter Cole and Winter Nelis.

Plums.—With the exception of early dessert and the late varieties, planting should be conservative.

It is suggested, in conclusion, that growers would make an economic error to allow their orchards to run down because of temporary—and passing—disabilities. Replacements should be made judiciously to maintain the standard of production.

Apple Varieties Raised in Tasmania.

No. 2 of Series.—Tasma (Democrat).

By P. H. Thomas, Chief Horticulturist, Tasmanian Department of Agriculture.)

VERY FEW FRUITGROWERS are aware that Tasmania, besides being the largest Apple-producing State of the Commonwealth, has also contributed some of the most valued varieties which are now in cultivation throughout Australia and New Zealand. Whilst each year a number of new Apples are evolved, either by natural or controlled hybridisation or by the chance production of sports, very few of these subsequently obtain a place in the fruitgrowing industry. The reason of this is obvious. To-day the planter has a choice of some hundreds of varieties, and any new Apple must possess outstanding merits or be an improvement upon an existing kind before it receives consideration.

The Apple sought after both by producer and retailer, if a dessert kind, must possess flavor, color, and good keeping and carrying qualities. The tree should crop regularly, be vigorous in growth, and not particularly susceptible to fungus or insect pests. Very few new Apples will possess all these merits, but occasionally one is raised that will fulfil most of the requirements, and after the natural prejudices of the trade to a new and unknown variety are overcome, its qualities may be recognised, and the Apple become a firm favorite upon the market.

Amongst all the Apples which have been raised in Tasmania, Tasma, or Democrat, is the most popular throughout Australia. The variety originated as a chance seedling some 25 to 30 years ago at an orchard belonging to Mr. J. Duffy, of Glenlusk, in the Glenorchy district. The Apple was first known as "Duffy's Seedling," and later as Democrat, but when it was recognised that another variety was in existence under this name, it was subsequently renamed Tasma. The parent tree is still to be seen by those interested, situated in a gully on the property, and regularly bears good crops of fine fruit.

Tasma is one of the best keeping, highly colored, late varieties. It is this latter quality that was principally instrumental in bringing the Apple into prominence. Whilst not possessing the delicate flavor of other kinds, it is eagerly sought after for dessert purposes, its deep brilliant red color making a very attractive display in the show window.

During the younger stages of growth the fruits produced are rather larger than the sizes which are in popular demand. This is a good fault. When the tree comes to full bearing regular crops of the marketable sizes are produced, and the variety is not affected to the same extent as the smaller kinds under dry conditions.

The tree is markedly vigorous in growth, and possesses a peculiar angular habit that makes pruning and training rather difficult in the young stages. In order to secure early cropping, it is necessary that full use be made of the laterals. These should be encouraged, and

Fruit Trees **Fruit Trees**

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APPLES	PEACHES	PEARS
YEARLINGS AND TWO-YEAR-OLD TREES IN ALL THE BEST COMMERCIAL VARIETIES.	DESSERT AND CANNING VARIETIES.	PACKHAM'S TRIUMPH, BARTLETTS, JOSEPHINES, AND OTHERS.

Yearling and two-year-old plums, also prunes, almonds, apricots, nectarines, persimmons, passion fruit, berry fruits and all classes of citrus fruit.

Before you order elsewhere—procure our catalogue and prices.

We are also large growers of ornamentals, for shade, street, avenue & park plantings.

GEMBROOK NURSERIES

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FRUITGROWERS:—Exhibit your Produce at this Show:—The finest advertising medium in Victoria for the Fruit Industry.

Liberal Prize Money offered for all varieties of Fruit

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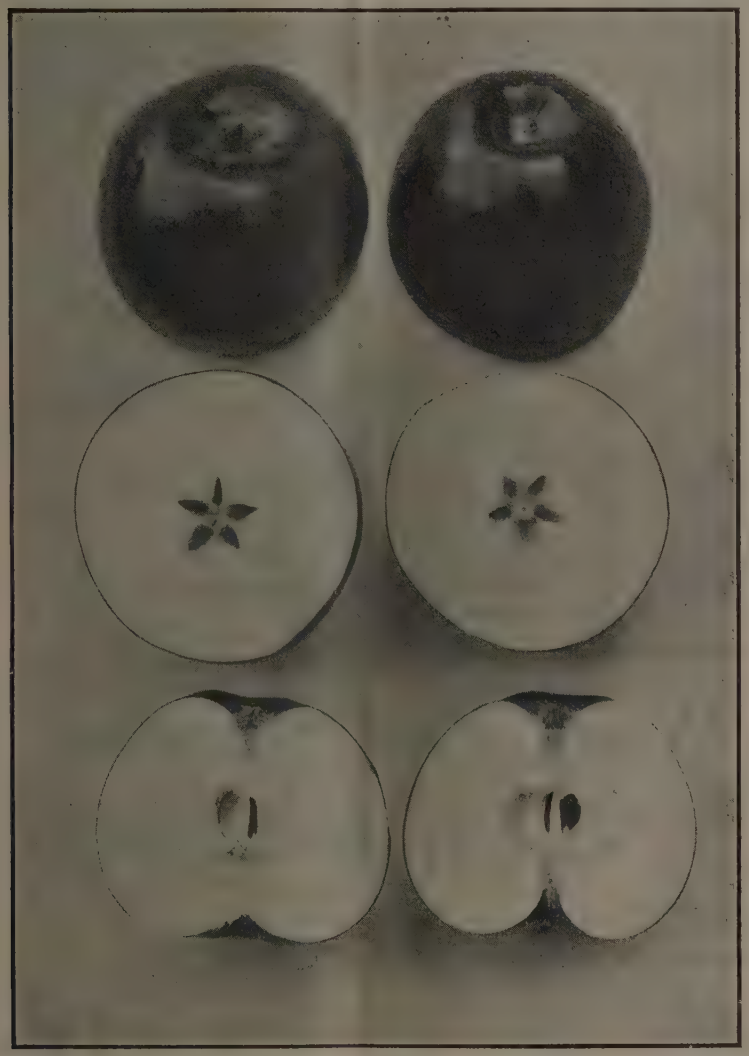
422 Collins Street, Melbourne

only lightly pruned or shortened back to develop the fruit-buds.

Tasma, compared with other varieties, can be classed amongst those Apples which are not particularly subject to fungus or insect pests. In the early stages of growth it sometimes suffers from the attacks of woolly aphis, but this may be controlled by a careful spraying, and when the tree is fully matured and the bark toughens very little trouble is experienced from this pest. The Tasma is now extensively planted throughout Tasmania,



Tasma (syn. Democrat) Apple, showing vertical and cross sections.

—Illustration by courtesy "Tasmanian Journal of Agriculture."

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Fernhill Nurseries, Pennant Hills Rd., Carlingford, N.S.W.

Are Now Booking Orders For :—

All Kinds of Fruit Trees, including Citrus, of which 150,000 are available, on Lemon, Orange and Trifoliata Stocks, in first-class, extra well-grown stuff, budded from selected orchards of best bearing types.

We can also offer some 25,000 Valencia, 10,000 Washington, 2,000 Eureka, 2,000 Marsh, and 2,000 Emperor, grown from buds supplied by the N.S.W. Bud Selection Society.

Quantity Prices Freely on Application. **Catalogues post free.**

SPECIALITIES:—Fruit Trees, Rose Plants and Kunde Secateurs.

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LIMITED QUANTITIES OF TREES TO OFFER RAISED FROM CITRUS BUD SELECTION COMMITTEE'S WOOD.

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Catalogues Gratis. Correspondence Invited.

QUALITY VERY PRIME FOR 1932

F. FERGUSON & SON,

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Also at Camden. Established 1848.

and has also found a certain amount of favor upon the mainland. During recent years it has proved a popular variety for reworking unsuitable or unprofitable kinds, its vigorous growth making it very adaptable for this purpose.

The fruits command the highest market prices towards the end of the season, and will often bring up to £1 per case for choice lots. Owing to its keeping qualities it is especially suited for cold storage purposes, and is often held until the end of December for the Christmas market. During a recent test fruits have been retained in storage for over 2½ years.

Pomological Description.

Fruit:—

Form: Round-conic, regular.
Size: Medium to large.
Cavity: Deep, narrow, rounded, slightly russeted.
Stem: Variable, medium, thick.
Basin: Medium, wide, russeted, sloping, furrowed.
Calyx: Open. Tube: funnel-shaped. Sepals: erect, convergent.
Color: Greenish-yellow ground color, skin surface almost wholly covered with very deep red.
Dots: Grey, round, more numerous towards the basin.
Bloom: Scant.
Skin: Thick, tough, oily.
Flesh: Yellowish-green, crisp, fine-grained.
Core: Medium emarginate. Carpels: cordate. Axile seeds: large, wide, plump.
Quality: Good. Flavor: Dry, sweet and pleasant to taste.
Season: Very late, fruits have often been kept in cold store over 12 months.

New South Wales Bud Selection Society's Buds . .

In 1931 we purchased from the Bud Selection Society eight thousand buds of Valencia Late Orange and Washington Navel Orange, Emperor Mandarin, Eureka Lemon, Marsh Grape Fruit.

Trees from these buds are now ready to plant.

They are strong, well-rooted trees—will carry anywhere.

If you have the space, put a line of these alongside those you already have and watch results—it is worth while.

Catalogue Post Free.

Thos. Adamson

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GRAPE FRUIT IN ENGLAND.

Demand Steadily Increasing.

In a recent report sent in by Mr. A. E. Hyland, Director of Australian Trade Publicity, to the Department of Commerce, the following appears:—

"I am much impressed by the extraordinary growth in the consumption of Grape Fruit in this country. In 1921 the imports were valued at £41,647; in 1930, at £556,313, of which foreign countries produced £466,607, the United States accounting for £391,051, and Cuba for £37,322.

"Within the Empire, South Africa was the chief supplier, her exports increasing from £3,329 in 1921, to £46,753 in 1930. British West Indies present £25,090 worth, and other British possessions £17,863, total Empire imports growing from £13,520 in 1921, to £89,706 in 1930.

"The trade is in both fresh fruit and canned fruit. The canned Grape Fruit is very widely used, and is most acceptable, and I believe is a class of trade which could be done very satisfactorily by Australia.

"The present market prices range from 25/- to 30/- a case of fresh fruit; cases are in counts of 64, 80, 96 and 112. Retail prices at the moment are:—64's, 8d. each; 80's, 6d. each; 96's, 5d. each; 112's, 5d. each.; but at the moment the market is exceptional, prices being very high.

"Australian Grape Fruit is, I think, as good as most other.

"Canada is a heavy importer of Grape Fruit from the United States, chiefly from Florida, California and Arizona. She gets a little from Jamaica from which, under a West Indies treaty, the fruit enters Canada free if it goes direct to a Canadian port. Canada's imports of Grape Fruit last year were 360,590 boxes of 70 lbs. each, 322,047 boxes coming from the United States. The Jamaica proportion represents about a quarter of that island's total exportable surplus, most of which goes to Great Britain.

"The consumption of Grape Fruit in the United States is computed as between five and six pounds per head per year. In Canada it is computed at about 2½ pounds. I do not know exactly what the consumption is in this country, but I should think it would be much less than that of Canada."

PLANTING FRUIT TREES.

(By Swane Bros., Ermington, N.S.W.)

All deciduous fruit trees should be planted during May to August, inclusive. June and July are generally regarded as the best months. Early planted trees get established before the dry summer sets in. Time for planting should be judged a good deal by your own locality, as in some districts spring is later than in others. Our district, being comparatively early, it is advisable for planters in districts where spring is late to receive the trees early, and heel in till required, as they are more likely to remain dormant that way. Trees can be planted earlier or later if so desired, but there is no advantage and nothing gained in planting out of season.

The age trees begin to bear is variable and largely depends on cultivation, pruning, and conditions prevailing after planting. Trees growing extremely well in early stages will not bear as early as trees that get checked in their growth, and when trees are neglected and left unpruned from the beginning they will often fruit early, but rarely develop into a tree capable of bearing a decent crop.

Extra early fruiting is not desirable, as it is at the expense of future crops.

Orchardists!

Plant Reliable Fruit Trees

Our Nurseries are situated in Ermington and Rydalmere, N.S.W., where we carry large stocks of all leading commercial varieties of Citrus and Deciduous Fruit Trees.

We grow also yearly, upwards of 50,000 Rose Plants, both new and old, of Bush and Climbing varieties.

You should try us for your next order. Large or small orders receive our personal attention.

Quality Trees and Roses, efficient packing and prompt dispatch of all orders.

Catalogue Free on Application to:—

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The Fruit Trade

Market Reports and News Items

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS.

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Slater, Jas., City Fruit Markets.

Melbourne: **VICTORIA.**

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Monro, Geo., Ltd., Covent Garden.
Poupart, T. J., Ltd., Covent Garden.
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White & Son Ltd., London Fruit Exchange, Spitalfields, E.1.

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The Port of Hull, London and N.E. Railway. Rep. Burns. Philp & Co. Ltd., 7 Bridge Street, Sydney.

Manchester:
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Hamburg:
Astheimer, P. H., & Son, Fruchthof.
Gustav Bey, Hamburg.
Int. Fruit Import Gesellschaft.
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Stier, Aug., Fruchthof.
Timm & Gerstenkorn.

Copenhagen: **DENMARK.**
International Fruit Import Co.

Great Britain and Continent.

The following cable message has been received from London by Major H. Dakin, of Sydney, representing Messrs. Geo. Munro Ltd.:—

"Port Sydney" Apples on ripe side, some waste. Worcesters, 9/- to 11/-; Cox's spotted, 9/- to 12/-; Tomarco Worcesters, wasty, 7/- to 9/-. Tasmanian Pears useless; condemned.

"Maloja" generally good condition. Jons., 9/- to 11/-; G.S., 14/- to 15/-; Cox's, 12/- to 18/-; Cleos., Ribstones, 10/- to 11/-; Alf., French Crabs, 10/- to 12/-; Comice, trays, 7/- to 8/6; few over-ripe, 5/-; Bosc, trays, 5/- to 5/6; W. Cole, 4/- to 4/6; Clairgeau, 3/6 to 4/-; half-cases Capiamont, 6/-; Bosc, cases, 17/-; Le Conte, 12/-.

"Ceramic" Apples and Pears landing fair condition. Present trade good, but indications market easier.

A report is to hand from Mr. J. O. Sims, fruit broker, of the Boro' Market, London, England, dated April 14, 1932. Noted in the report were the following:—

W. A. Apples, ex s.s. "Barrabool," consisted mostly of very large fruit. Prices ruling were as follows:—Dunn's, 10/9; Del., 10/6 to 11/-; Cleos., 10/6; Jons., 9/3 per case. W.A. Pears, ex same steamer, sold at:—Jos., 17/- to 20/- case; Vicars, 5/9 to 6/- half case; various, 6/3 to 8/6 half case. There was a poor demand for West Australian Grapes.

Vic. Apples:—Jons., 8/- to 10/-; Dunn's, 9/6 to 11/6; Cleos., 9/6 to 10/6; others, 8/- to 11/-.

Vic. Pears.—Howells, 11/9 to 12/9; Beurre Bosc, 13/- to 14/9 case.

Messrs. Parnham Pty. Ltd., 31 Queen-street, Melbourne, advise having received the following cable from Messrs. White & Son Ltd. (The White Service), London, England:—

"'City of Winchester' Apples:—Jons., 9/- to 10/6; Yates, 10/- to 10/6; Dunns, 9/- to 10/6; Pears, Beurre Bosc, 11/6 to 14/-; Howells, 11/- to 12/-; Winter Coles, 12/- to 14/9."

Hamburg.—A market report of an auction held at Hamburg on April 21, 1932, is to hand from Ph. Astheimer & Sohn, at which the sales of U.S.A. Apples comprised 33,995 boxes. Australian Apples and Pears: Out of first cargo ex s.s. "Bitterfeld"—11,133 cases W.A. Apples; 10,717 cases Tas. Apples; 1,584 packages W.A. Pears; and 3,824 packages of Tas. Pears.

The West Australian Cleos. and Dunns were generally of good quality, clean and of fairly good color. Bitter pit very little in evidence; Jons. were partly showing the Jonathan spot.

New South Wales.

Sydney (26/5/32).—Apples: Local, 6/- to 9/-; Del., to 13/-; G. Smiths, to 13/-; Tas. D.C., 5/- to 6/-; Jons., 4/- to 7/6; G.F., 4/- to 7/-; T.P., 5/- to 7/-; F.C., 5/- to 7/6; Cleos., 4/- to 8/-; S.P.M., 5/- to 7/-; Del., 6/- to 9/-, few to 11/-; other varieties, 4/- to 6/-; jam, 3/- bushel case; Bananas, nines and eights, 21/- to 24/-; sevens, 17/- to 20/-; sixes, 14/- to 17/- case. Citrus: Lemons, local, choice, 6/-; medium, 5/-; small and inferior, 3/- to 4/-; irrigation, to 7/-; S. Aust. and Vic., 5/- to 8/-; Mandarins, 2/6 to 7/-; Oranges, 2/- to 3/6; Navels, 3/- to 6/-; irrigation, to 7/- bush. case; Custard Apples, 2/- to 4/- half-bushel case; Grapes, irrigation, Cornichons, 6/- to 8/-; Ohanez, 6/- to 8/- half-bushel case; Guavas, 2/6 to 4/- half-bushel case; Passion Fruit, local, 4/- to 13/- half-bushel case; Papaws, 8/- to 14/- case; Pears, local, dessert, 4/- to 9/-; Tas. W.C., 8/- to 12/-; P.T., and W.N., 7/- to 10/-; Jos., 5/- to 8/-; G.S., 5/- to 8/-; other varieties, 5/- to 8/- bushel case. Persimmons, 1/6 to 3/- half-

bushel case; Pineapples, Quinns, 9/- to 14/- case; Quinces, 8/- to 14/- bushel case; Tomatoes, local, 2/6 to 5/-; irrigation, 3/- to 5/-, few 6/-; Bowen, 4/- to 7/- half-bushel case.

SYDNEY MARKETS.

Report on Activities for Month Ending May 24, 1932.

Messrs. Macdermott & Sheedy, farm produce agents, City Fruit Markets, Sydney, advise as follows under date May 24:—

Trade generally in the fruit business has been dull, due in a large measure to the unsettled political position. The withholding of child endowment and other payments by the late Government was immediately reflected by a falling-off in the demand for fruit and vegetables. The weather also was not conducive to a heavy consumption of fruit.

It is always a difficult matter to lift prices when they have become depressed, unless there is a falling-off in supplies, and this season is not likely to prove an exception.

Apples.—Supplies of local Apples were very light indeed during the past month, and good quality Granny Smiths and Delicious realised relatively high prices. There was no shortage, however, of Tasmanian Apples, supplies right throughout the month being above requirements, and there was little change to report in values. Towards the latter end of the month, it was noticed that a fair proportion of Apples were arriving in a more or less faulty condition, and these had to be sold at lower prices. While there was always a demand for choice fruit, Apples not in good condition were very slow of sale even at reduced values.

Pears have been only in moderate supply throughout the month, values for good commercial sizes of all varieties closed firm and indications are that prices will not come back.

Passion Fruit have been very scarce during the past three weeks, but the winter crop is reported to be a good one, and supplies should soon be coming forward again.

Citrus Fruit.—There is reported to be a good crop of Navels throughout the State, and arrivals increased considerably during the past fortnight, with naturally a fall in values. It is noticeable that most of the Navels so far marketed have been of much better quality than in previous years, and this improvement is reported to be general, particularly in inland areas.

Siletta and Common Oranges have been only in fair supply, but enquiry has been limited and prospects are not favorable for these varieties in competition with Navels.

Mandarins.—Up to the present only limited supplies of Mandarins have been on the market, and most of the fruit has been bought either for export or for other States. As the fruit becomes better colored and sweeter, the retail business can be expected to improve. The crop is estimated to be lighter than usual this season. Despite this, however, sizes on the average are smaller and difficulty may be experienced later on in the season in selling small Mandarins when Navels are in full supply.

Grapes are now almost finished for the season. There has been a fair enquiry lately for Ohanez for export, and supplies were not sufficient to fill requirements.

Pineapples were in short supply most of the month, and values were relatively high. The new season's crop has now commenced to come forward, and values are easing. The majority of the fruit so far arriving is large and on the green side.

Bananas have been scarce and prices have held up practically right throughout the month.

Victoria.

Melbourne (31/5/32).—Fruit had quiet inquiry. Bananas were in short supply and prices remained firm. Oranges were plentiful, but with slow sales. Excepting where otherwise stated, the quotations are at a bushel case. Apples, eating, Jons., 4/- to 6/-; Del., 5/- to 8/-; cooking, Five Crowns, 5/- to 7/-; G. Smiths, 6/- to 9/-; Grapes, Ohanez, 8/- to 10/-; Oranges, Thompson Navels, N.S.W. and Vic., average standard, 6/- to 8/-, a few selected Vic. and S. Aust. standards, 10/-, few selected wrapped lines, 11/-; Mandarins, few selected mature fully colored varieties to 13/-; other lines lower according to color and condition; Grapefruit, Vic. average standard grade 9/-, best counts 11/-; Lemons, average standard, 180 to 248, to 7/-, small sizes 5/-; Val., Northern districts, 8/- best counts, large to 5/-, a few selected lines, best counts 10/-; Strawberries, 4d. to 10d. a punnet; Pears, dessert, Packhams, 6/- to 8/-; Howells, 4/- to 6/-; Quinces, South Aust., 6/- to 9/-; Bananas, Queensland, green, 6 12/- to 14/-, 7 15/- to 17/-, 9 and 8 18/- to 22/-; Pineapples, 10/- to 12/-; Passion Fruit, 12/- to 14/-; Tomatoes, Milduras, a few to 14/-.

The Melbourne market manager of the Federal Citrus Council of Australia reports sales were as follow:—New season's navels, average standard Vic. and N.S.W., full colored, 84-112 to 7/-, 126 up 8/-, part green lines lower, a few selected standard lines to 10/- and 11/- best counts. Commons, 6/-. Mandarins, N.S.W. Emperors, best counts, fully colored, 9/- to 11/-, according to color, a few selected mature Vic. lines to 13/-, part colored and small sizes, counts over 252, lower. Grapefruit, Marsh's seedless, average standard grade, best counts to 10/-, selected lines 11/-. Lemons, average standard grade, counts 180-248 to 7/-. Val., few selected lines, best counts 10/-, average standard grade almost unsaleable.

MELBOURNE WHOLESALE FRUIT MARKET.

The replanting of large areas in the Tweed River country with Bananas some years ago, has now made its presence felt on the markets of the Commonwealth. A good quality Banana is being produced, and is proving a serious rival to the Queensland product. An excellent market for Tweed River Bananas has been established at the Melbourne Wholesale Fruit Market.

GROWERS!

Consign your Fruit to:—

JAMES SLATER

21 City Markets, Sydney

Postal Address: Box 36, Haymarket P.O., Sydney. Established 1882.

Bank Reference: Commercial Banking Co., of Sydney, Haymarket.

Specialist in Strawberries and all other Choice Fruits.

All Victorian Fruits and Nuts handled to best advantage on the Sydney Market.

Shipping No. 19 88 Vic. & Tas.

See Paragraph, Page 209.

Stencils, Advice Notes, etc., on Application.

Tasmanian Apples are now appearing on the market in large quantities, but the sales have been quiet owing to the restricted buying power of the general public and much of the fruit has been sent along to the cool stores until the market becomes firmer. Prices during May ranged from 6/- to 9/-. Eating varieties of good quality averaged 7/- per case, and cookers 6/- per case.

New seasons Washington Navels brought up to 11/- for best counts, but there was a fair quantity of green and immature fruit that should have been kept on the trees instead of being picked and sent to market. Some of this green fruit was almost unsaleable.

Western Australia.

Perth (20/5/32).—Apples: Jons., dumps, 6/6 to 11/- (special to 12/3, others from 5/-); Dunns, 4/6 to 7/6 (special to 8/6); R. Beauty, 5/- to 8/6; Yates, 5/- to 8/6 (special to 9/6, others from 4/-); Cleo., 4/6 to 8/6; Doherty, 5/- to 7/6; Del., 6/- to 9/- (special to 10/6); Rokewood, 4/- to 6/-. Citrus: Navels, flats, 3/- to 6/- (special to 8/-), dumps 5/- to 9/-; Lemons, 3/- to 5/- (special to 6/-, others from 2/-); Pears, Keiffers, flats, 4/- to 7/-; dumps, 5/- to 9/-; Tomatoes, local, 3/- to 6/- (special to 8/-, others from 2/-); country, 2/- to 3/6.

South Australia.

Adelaide (27/5/32).—Apples (eating), 6/- to 7/- case; do. (cooking), 3/6 to 4/-; Grapes (dark), 10/- case; (white), 10/-; Lemons, 5/- to 6/-; Oranges (common), 5/- to 6/-; Mandarins, 10/- to 11/-; Navel, 6/- to 9/-; Pears (eating), 6/- to 7/-; (cooking), 3/-; Persimmons, 8/-; Pineapples, 18/- to 20/-; Pomegranates, 4/-.

Queensland.

Brisbane (24/5/32).—Local Fruit: Pineapples, smooth leaf, 4/- to 7/- case; rough leaf, 3/- to 4/6 case; Passion Fruit, No. 1 quality, 6/- to 10/-; No. 2 quality, 4/- to 6/-; Apples, G. Smiths, 6/- to 9/- bushel case; others, 5/- to 8/-; Oranges, 2/- to 5/-; Navels, 5/- to 8/-; Benyenda, 8/- to 11/-; Lemons, local, 1/6 to 4/- half-bushel case; Limes, 2/- to 2/6 half-bushel case; Custard Apples, 2/- to 3/- odd sales higher; Mandarins, Howard Emperors, 5/- to 6/-; North Coast, to 8/-; Scarlets, 5/- to 9/-; Glens, 8/- to 12/-; Benyenda, 9/- to 14/-; Gayndah, 10/- to 13/-; Papaws, 2/- to 2/6 bushel case; Yarwun, 8/- to 9/- a one and a half bushel case. Imported Fruit: Apples, Jons., 8/- to 9/-; Dukes, 6/- to 7/-; F.C., 5/- to 8/-; N.Y.P., 7/- to 8/-; T.P., 7/- to 8/-; A.R.O., 6/- to 7/-; F.C., 8/- to 9/-; A.P.M., 5/- to 7/-; Pears, W.C., 10/- to 13/-; W.N., 10/- to 12/-; G.S., 8/- to 11/-; T.B., 8/- to 10/-.

BAVE-U Power Sprayer

The best and most reliable sprayer known. Easy to operate—no chocked nozzles.

Full particulars supplied with pleasure by the manufactures

RUSSELL & CO., Engineers
BOX HILL, E.11, VICTORIA.

PYSECT or PESTS ?

—you can't have both!

Pysect Concentrate, the original British Pyrethrum Insecticide, definitely supersedes nicotine, arsenic and the older washes. More potent than nicotine, it is non-poisonous to warm-blooded animals and harmless to vegetation—even the most tender shoots. Color and flavor of the fruit are not affected. No effect upon bees. Trees may be sprayed in blossom.

A one-solution spray, it mixes readily with water to form a perfect emulsion. No soft soap required.

One fluid ounce (2 tablespoonsful) of Pysect Concentrate will make up to 16 gallons of effective spray.

Available from—
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All Nurserymen and Seedsmen, or direct from
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Postal Address—
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Sydney.

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DEATH TO PLANT PESTS
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Distributors Wanted in All Districts.

LION BRAND.

Orchard Sprays

We manufacture a complete range of sprays for the orchardist, including:

ARSENATE OF LEAD (PASTE)
ARSENATE OF LEAD (POWDER)
LIME SULPHUR
WHITE OIL EMULSION
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SPREADERS (SPECIAL) CASEINATE
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All sprays will be manufactured from the same formulae as previously used by Mr. S. R. Bushnell whilst associated with Jaques Pty. Ltd. Orchardists can therefore rely upon getting the best quality fruit sprays.

Write for prices and particulars to:

ORCHARD SPRAYS PTY. LTD., 549-51 Church Street, Richmond, Victoria, or—
CAMERON, SUTHERLAND & SEWARD PTY. LTD., Riverside Avenue, Sth. Melb., Vic.

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Serve a Population of **Twelve Millions** in the surrounding area at Less Cost than by any Other Route.

Insist on Direct Shipment to that Great Market!

If further information is desired apply to:

Capt. W. J. Wade

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Telegrams and Cables—"Portoman," Sydney

No. 9 Spraying Machine

The Most Extensive Manufacturers in the British Empire of

RUBBER STAMPS

Stencils, Marking Devices, Inks & Acme Stamp Pads

We make a Big Range of Special

Fruit Case Marking Sets

We also Manufacture and Supply

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Let us know your requirements, and we will quote you. Ask for Spraying Equipment Price List

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160 George St. West, SYDNEY, N.S.W. — 278 Post Office Place, MELBOURNE, VIC.
86 Manners St., WELLINGTON, N.Z.

NEW ZEALAND.

Dunedin (19/5/32).—A report is to hand from Messrs. Reilly's Central Produce Mart Ltd. as follows:—

Apples, Cox's, choice 7/- to 10/-; Jons., 4/- to 5/6; Del., 5/- to 6/-; Alf., Lord Wolseley, choice, large cookers, 3/6 to 5/6. Pears, W. Cole, 4/- to 6/-; W. Nelis, 5/- to 6/-; ripe and wasty, 1/- to 2/6. Pines, 22/6; Australian Grapes, 21/6; Cape Gooseberries, 4/3 to 5/-; Island Oranges, 16/-; Cal. Oranges, 42/6; Blue Ribbon Oranges, 20/-; N.Z. Passions, 6/- to 8/-; Cal. Grapefruit, 45/-; Cal. Lemons, 50/-; Quinces, 6/6; Bananas, choice, ripe, nines, 18/-; Suava, cases, 21/-; Grapes, Gross Colmars, 1/9 to 2/-.

FRUIT PRICES IN LONDON.

London, June 1.—Apples are lower in price owing to heavy supplies. Fruit from the steamers "Esperance Bay" and "Hurunui" realised the following prices:—Tas., Dunn's, Cleo., and Jon., 8/- to 9/9 a case; Grannys, 14/-; Scarlets, 7/6 to 9/6; Cox's, 8/- to 13/6; Sturmers, 8/- to 10/6; Alf., 8/- to 10/-; Crow-eggs and Duke of Clarence, 7/- to 8/6; and Vic.—Jon., 8/6 to 9/9. The "City of Winchester's" shipment of S. Aus. Apples brought the following prices:—Cleo. and Dunns, 9/- to 9/6; Jon., 8/- to 9/-; and large and very wasty fruit, 4/6 to 5/6. The "Northumberland's" N.Z. Jon. and Del. realised 10/- to 11/-; Dunns, 9/6 to 10/6; and London Pippins, 9/- to 10/- a case. The "City of Dieppe's" shipment of Pears were sold as follow:—Vic.—Keiffer, 10/- a box; Packham, 12/- to 14/-; Josephines, 6/6 to 8/- a half-case. Tas.—Jos., 14/- to 16/-; Boscs, 12/- to 15/-; and W. Cole, 12/- a box.

BUSINESS EXTENSION.

C. G. Parnell Joins F. Cave & Co., Melbourne.

The business of F. Cave & Co. Pty. Ltd., wholesale fruit merchants and commission agents, Melbourne, has been greatly extended with their going into the new Wholesale Fruit Market. The business has now been further extended to embrace Queensland fruit, and the services of Mr. C. G. Parnell, who up till recently represented the Committee of Direction of Fruit Marketing (Queensland) in Melbourne, have been engaged. Mr. Parnell will have complete control of that section of the business.

Besides having been a grower, Mr. Parnell has been associated for eight years with the marketing of fruit on behalf of the C.O.D. He thus knows both ends of the business and growers are assured that their interests will be capably attended to.

Messrs. Cave and Company have now four extensive Banana ripening rooms.

Mr. Cave, besides being a popular fruit merchant and exporter, is a member of the Executive of the Victorian Fruit Marketing Association.

The new representative of the Committee of Direction is Mr. A. Wilson, who has been a member of the producers' councils in Queensland, also assistant manager of the C.O.D. in Sydney for over four years.

Fond Mother: "Enjoyed your party, Bobby?"
Bobby: "Awfully."
Fond Mother: "What little girls did you dance with?"
Bobby: "Oh, I didn't dance. I had three fights downstairs with Tommy Jones, and I licked him every time."

Poultry Notes.

Balanced Rations.

"H.B." (Mitcham) writes:

1. Would you kindly give me a balanced ration to feed as dry mash to White Leghorns on the intensive system, with plenty of fresh cut green feed on hand, and would it be best to mix charcoal with mash or have it in separate feeder along with grit.

Ans.—A good dry mash for layers would be as follows:—Bran 30 lbs., wheat pollard 50 lbs., oaten pollard or maizemeal 10 lbs., meatmeal or dried buttermilk 10 lbs. Plenty of green feed should be fed at midday, and it is also advisable to feed a little after the grain fed at night. Granulated charcoal and shell grit are usually kept in separate containers.

2. Is 3 parts wheat, 1 part hulled oats, and 1 part cracked maize a suitable ration for winter.

Ans.—A grain ration such as you suggest would be suitable, but I would suggest that you replace the hulled oats with steel clipped Algerian oats.

3. Would onions minced and fed with green feed be enough tonic to keep birds in the best of health, and how much to allow per bird.

Ans.—Minced raw onion given once a week is a splendid tonic for the birds and should keep them in good health. Feed at the rate of 1½ lb. per 100 birds.

Healthy Hens Pay Dividends in Eggs

Keep your hens in perfect health and they will lay regularly—and frequently. Mix Karswood Poultry Spice into the evening mash, and so make sure that they get all essential nourishment from their food.
Karswood embodies natural tonic-elements that enrich the blood and stimulate laying activity. Try a packet and see how surely Karswood increases egg production without forcing.

READ THIS LETTER.

I find Karswood of great benefit to my fowls, and am a great believer in it. I had 15 Black Orpington hens, and used to get on an average of 3 dozen eggs in seven days. After using Karswood Spice, I found the improvement—in the same number of days I got on an average of eight dozen and two.

(Sgd.) R. S. CARTER.
Cowra, 28/9/'31.

MAKE THIS TEST.

Get a half-pound packet of Karswood from your poultry-food supplier. Feed it to six of your birds as directed on the packet. Do not expect immediate results, for Karswood acts naturally, not suddenly. It takes at least a fortnight to bring results, but they are absolutely certain.

KARSWOOD
POULTRY SPICE
Increases egg-production without forcing.

Feeding Rations.

"D.M." (North Essendon) writes:

Ques. 1.—Will you please advise me through your paper of the best feed, quantity per bird, mixture, etc., for 7-months-old Muscovy ducks and fowls. I want to know which is the better for morning meal and night feed, and the quantity to be given each bird. Is it better to give poultry hot mash in the morning and grain at night, or grain in the morning and hot mash at night, with green feed at noon?

Ans. 1.—A good mash for ducks and fowls could be made up by measure as follows:—3 parts wheat pollard, 3 parts bran, ½ part oaten pollard. To this add 50 per cent. chaffed green feed and 10 per cent. meat meal. Mix to a crumbly consistency. Feed as much as the ducks will clean up in a few minutes without wasting any. It would be difficult to overfeed Muscovies. Laying fowls require about 2 oz. of mash and 2 oz. of grain per bird daily. If milk in any form is available it can be used instead of meat. Feed the warm mash in the morning and the grain at night. See that ducks have drinking water handy in a vessel deep enough for them to immerse head and neck.

Ques. 2.—Should poultry and ducks be given peelings and waste from the house, I have just started keeping poultry, and would be glad of all the information you can give me.

Ans. 2.—Clean and fresh household scraps and peelings can be mixed with the morning mash for either ducks or fowls. Never feed anything that is tainted, and hard peelings should be boiled first.

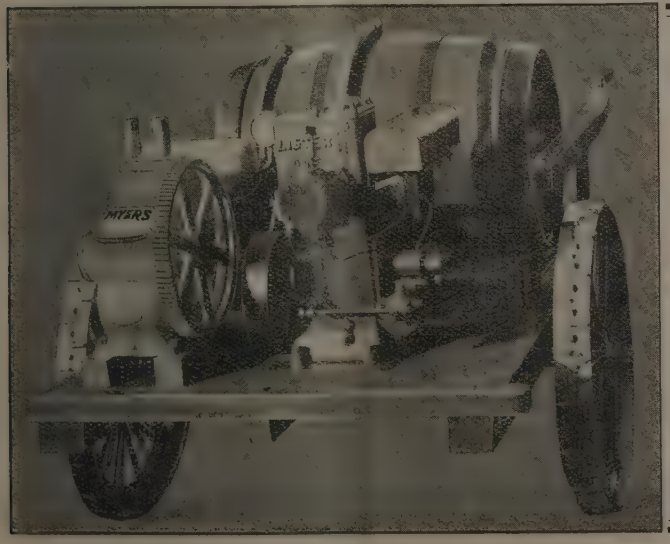
Mr. C. Tapscott's W.L. pullet—winner of Eastern Districts Egg-laying Test, 1931-32, with a score of 306 eggs.

TIME TESTS ON TRAPNESTS.

One of the strong arguments advanced against trapnesting individual hens to determine laying ability is the pretention that considerable time is required in the operation.

During the past seven years the Experimental Station of the Canadian Department of Agriculture at Cap Rouge, Quebec, has made a special study of this important factor in poultry breeding, and finds that to trapnest a flock of 100 hens it takes an average of 8.3 minutes per day. This test included a complete record of the time involved from the time of releasing the hen from the nest, picking up the egg and re-setting the trap. As a matter of fact, it takes almost as much work and time to collect the eggs from the nest under ordinary conditions as it takes to gather eggs from a flock which is being trapnested.

In view of the accurate information with respect to the ability of the individual hen as an egg producer, the very little extra time it takes to operate the trapnests and keep records is well spent. It is only by using the trapnest that the farmer can have anything like an accurate indication of the real worth of the individual birds of his laying flock and where one has as an objective increased production the trapnest is a sure means of rapid progress in this direction.—("Canada Poultryman.")



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PERSONAL.

Mr. C. J. Parnham, of Messrs. Parnham Pty. Ltd., 31 Queen-street, Melbourne, has been seriously ill with double pneumonia. We are glad to report that he is now on the road to recovery.

ACCIDENT TO CANNERY MANAGER.

We are very sorry to report that a painful accident occurred at the Shepparton Fruit Preserving Company, when the manager (Mr. Thomas Peart) lost his right hand in a new cutting machine. In inspecting the operating of the new machine, Mr. Peart's foot slipped, and in putting out his hand to save himself, it was caught in the machine. Much sympathy has been expressed for this popular cannery manager in this severe loss.

NEW REGISTRATIONS.

The Commonwealth Fruit and Produce Co. Ltd., capital £2,000; fruit and vegetable merchants, etc. Subscribers: Bessie I. Sutton, A. W. N. Ward, T. Sutton, J. G. Coyle, J. G. D. Gourlay, D. W. Murray, and M. E. Cathels.

Goodfellow & Company, 641 George-street, Sydney, wholesale fruit merchants—Com. 6/5/32. Proprietor: John R. Goodfellow. Registered 6/5/32.

Central Fruit Company, Municipal Markets, Sydney, fruit and vegetable agents—Com. 30/4/32. Proprietor: William R. Duncan. Registered 29/4/32.

Scobie Brothers, Wedderburn, orchardists—Com. 1/1/32. Proprietors: James H. and Henry S. Scobie. Registered 11/3/32.

General Fruit Co., City Fruit Markets, Quay-street, Sydney, wholesale fruiterer—Com. 11/4/32. Proprietor: Samuel Greenberg. Registered 27/4/32.

West End Preserving Co. Pty. Ltd., general merchants. Manufacturers, etc. Regd. office, 617 Spencer-street, Melbourne. Regd. May 10. Capital, £2,000 in £1 shares. Names subscribed to memorandum: Carlisle Francis Longmore, 1 share; Stanley Hobart Wilson, 1 share; William George Balfour and Cedric Harper Brock are also directors.

United Australian Tobacco Manufacturing Corporation Pty. Ltd. Regd. May 5. Capital, £10,000 in £1 shares. Names subscribed to memorandum: Charles Bertrand Alexander, 1 share; Robert Morrison McVea, 1 share; Eliab Box, 1 share; Maurice Victor Crowe, 1 share.

OF COURSE.

Him: "Men of my type are not running loose."

Her: "Of course not; that is what the Police Department is for."

CUMBER NURSERY, ERMINGTON, N.S.W.

The nursery firm of Geo. McKee (late J. B. McKee), of Ermington, N.S.W., was established in 1850 by the late Mr. J. B. McKee, and is among the oldest nursery businesses in Australasia. The late Mr. J. B. McKee planted his own orchards and for many years carried on the orchards in conjunction with his nursery.

The third generation of this family has now succeeded to the business, and is conducting it in a satisfactory manner. The trees for sale this year are equal to the best that have ever been sent out. The stocks are well grown and best buds selected from approved bearing trees.

Lifting the trees is carefully supervised, as is packing. There is no detail that is not performed by experts, a very extensive overseas trade being carried on. Although specialising in citrus, all varieties in popular demand among summer fruits are catered for. The nursery is open to inspection and is readily accessible from Sydney. The trees go down the Parramatta River, right to the ship's side for interstate trading, and there is a minimum of handling throughout.

An Optimist.

The greatest optimist yet discovered was the salesman who sold a Rolls-Royce for cash and then smilingly asked: "Is there anything else to-day?"

Echoes of the Past.

"So you remember away back to the Revolution, do you?" asked a gentleman of an old negro.

"Yessah—de Revolution an' Gin'l Washington an' all dem. Sure do."

"Perhaps you were a witness to the fall of Rome."

"No sah. Ah didn't exactly see it, but Ah recollec' hearin' somethin' drop."

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Comprehensive review of Australian and New Zealand fruit industry.

"The Fruit World," Box 1944 G.P.O., Melbourne.

Vegetable and Garden Notes.

ASPARAGUS.—This splendid vegetable will grow on any soil that is well cultivated, a rich, deep alluvial soil and a fairly dry position being specially suitable. The ground should be prepared a few weeks before planting the roots. It should be well trenched to a depth of about two feet, and a good supply of well-rotted stable manure buried at a depth of 15 inches from the surface. Fill in, and make the ground level. Divide it into beds 4½ feet wide, leaving 2 feet between beds for alleys, or prepare for planting in rows 3 feet apart.

If this work is done at once, the ground will be prepared for planting at the end of the month. When setting the roots, make four rows in each bed, and plant the roots about 15 inches apart and 6 inches deep. In planting,

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spread out the roots radially, dipping downwards, and fill in the soil carefully by hand. Two-year-old roots are best for planting, as they will be fit for cutting the first year. It is unwise to cut more than an occasional stick the first year.

Shallots, Garlic and Chives.—The growing of Shallots is increasing in popularity each year. Good-sized Onions are ready several weeks ahead of those raised from seed, and green Onions are ready in half the time required to raise from seed. They prefer a light rich soil not recently manured, and the bulbs should be planted about 1½ inches deep in rows 1 foot apart, with 6 inches between bulbs. No thinning is required; in fact, nothing needs to be done to the bulbs after planting except keep the soil around them free from weeds.

The same preparation applies to Garlic, only before planting divide each clove from the bulb and plant separately.

Chives are Onion-like plants, used as salads and for flavoring soups, and will grow in any ordinary garden soil. They make a very ornamental edging for a garden bed, and should be cut frequently, a new growth of leaves

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Aphis and other insects are common enemies of the orchardist and gardener. Protect your trees, vines and plants with "Black Leaf 40."

In the Orchard and Garden

"Black Leaf 40" is recommended for killing wooly aphis, apple aphis, peach aphis, aphis on roses, other flowers and vegetables, mussel scale (young), Harlequin fruit bug, holy or cross bug, oleander scale (young), San Jose scale (young), red scale (young), red mites (Summer), rutherglen bug, pear and cherry slug, thrip, fine scale (young), pea mite.

In the Poultry Yard

Paint the roosts lightly with "Black Leaf 40" just before the birds go to roost. Body-lice will be destroyed while the flock roosts. To help prevent mites from attacking fowls, tie or tack a piece of heavy cloth around ends of roosts and roost supports and saturate with "Black Leaf 40;" spray inside of house with "Black Leaf 40," three tablespoonsful to a gallon of water to which soap has been added.

"Black Leaf 40" has the endorsement of Agricultural Colleges, Experiment stations and orchardists. It is the World's leading aphis specific. It also kills the young larvae of many chewing insects when sprayed upon them so as to wet their bodies.

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"Black Leaf 40" has a dual action. It kills plant insects both by fumes and by contact. This double-killing action makes "Black Leaf 40" unusually effective in insect control.

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Poultrymen find that if they paint the roosts lightly with "Black Leaf 40" the lice on the birds are killed. The heat from the birds' bodies releases fumes which destroy lice, as the flock roosts on perches.

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appearing soon after each cutting. The plants grow about 10 inches high, and every four years they should be lifted, divided, and re-planted on fresh ground.

Sowings for June.

Onions should be largely sown now, especially the **Brown Spanish** and **Imperial White Spanish** varieties. The latter is a pure white variety, mild and sweet. It grows quickly and keeps well. It matures just after the Silver-skin and Early Globe Onions are finished, and before the Brown Spanish variety is available. All growers of Onions should certainly sow this variety.

For spring use, sow **East Ham, Flower of Spring** and **Early Flat Parisian Cabbages.**

Do not make large sowings of many other vegetables, but a few rows of **Peas, Broad Beans, Radish, Parsnip, Lettuce, Leek** and **Spinach.**

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